Equipment + Process Design

AKW EQUIPMENT + PROCESS DESIGN




EQUIPMENT & PROCESS UNITS

Mineral processing,
our expertise
since 1963!

AKW Equipment + Process Design

Your specialist for mineral processing and environmental technology

We offer solutions for the wet mechanical and water management processing.

AKW Equipment + Process Design is a medium-sized, privately owned company focused on process engineering and equipment as well as on plant engineering, construction and service.

Since the foundation of AKW Equipment + Process Design in 1963 innovations, new product ideas and technologies have turned the company into a global operating enterprise with offices in Kiel, Moscow, Shanghai, São Paulo, Dubai, the headquarters in Hirschau (Bavaria) and agencies in many other countries.

Experience, know-how, motivation and a steadily high international standard in quality and service enable us to offer our customers tailor made solutions.

Equipment + Process Design

SUMMARY OF OUR PERFORMANCE

Technical laboratory & trials

Our state-of-the-art technical laboratory and the close collaboration between our research & development department and universities as well as other research institutes guarantee a high standard of technical development in process engineering. Besides our research and development performance we offer a wide range of test facilities.

Engineering

We assist you with our engineering activities during all planning steps:
Analysis and test reports – Prebasic engineering – Basic engineering – Detail engineering – Plant execution until take-over.

Equipment & process units

The applied processes are based on equipment and process units developed by AKW A+V GmbH. We take care of conception and application of proprietary products and have exclusive manufacturing partnerships with selected partners.

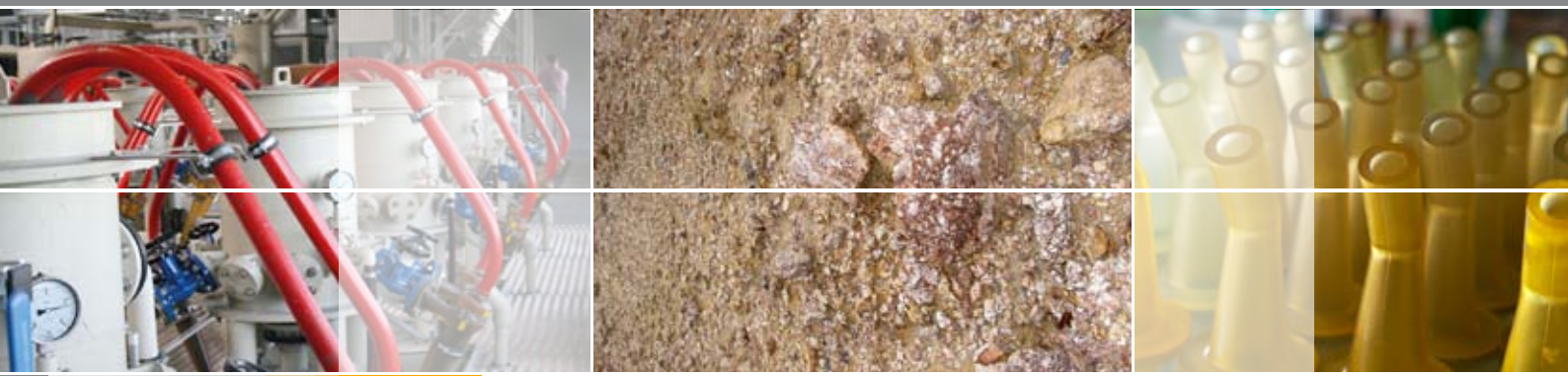
Plant design & construction

As a competent partner we take care of the plant engineering, construction, erection and commissioning of complete turnkey plants as well as for the refitting and optimization of already existing processing plants.

Spare parts & service

We support our customers as a partner and offer also our service after delivery and commissioning. Our after-sales service covers amongst others the reliable supply of spare and wear parts.

MARKETS WE SERVE



Mineral processing,
our expertise
since 1963!

MORE THAN 50 YEARS OF EXPERIENCE – TRADITION AND KNOW-HOW

Besides technical competence in the successful planning, conception and implementation of projects in the wet-mechanical processing of mineral raw materials and ores, AKW Equipment + Process Design has expertise in the treatment of chemical and corrosive media for the chemical, pharmaceutical and food industries.

MAIN MARKETS AND APPLICATIONS

MAIN MARKETS

Sand & Kaolin

- Construction sand
- Industrial sand
- Foundry sand
- Glass sand
- Special sand
- Kaolin

Environment

- Soils remediation
- Municipal residues
- Harbour sediments
- Sawing slurries
- Waste water treatment
- Biogas plants

Ores & Minerals

- Ceramics
- Ores (amongst others iron, copper, chromite, gold)
- Minerals (amongst others bauxite, ilmenite, cassiterite)
- Slags
- Rare earth

Chemistry, Pharma & Food

- Salts
- Starch
- Fertilizers

FGD

- Coal fired power plants (FGD)
- Waste incineration plants

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DELIVERY PROGRAM EQUIPMENT AND PROCESS UNITS

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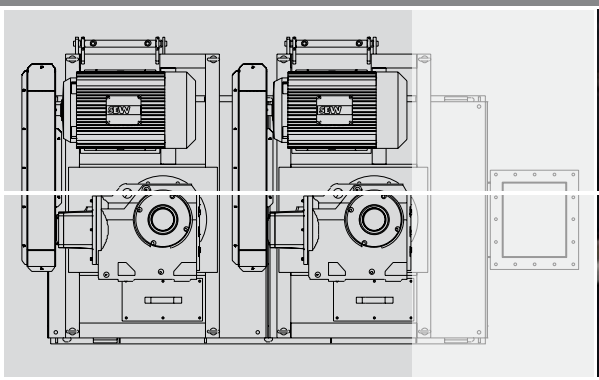
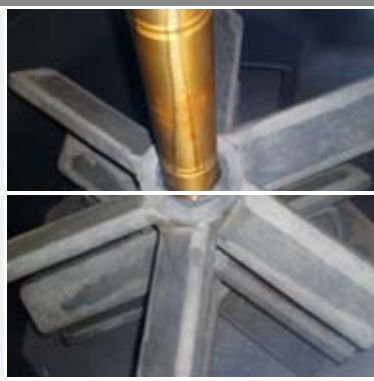
Values indicated may vary.

High Performance Attrition Cells AKA-TRIT





The attrition process is used for cleaning raw and residual materials contaminated with adsorbed impurities or pollutants. In this process, the individual particles are stirred intensively in high-solid slurry, which causes any adherent pollutants or extremely fine particles to be rubbed off the particle surfaces. The patented high-performance attrition system of AKW Equipment + Process Design enables a consistently effective attrition even under fluctuating inlet conditions.

PRINCIPLE OF OPERATION

In a high performance attrition the process conditions can be selectively adjusted during the attrition by means of on-line measurement of the solids concentration and controlled recirculation of an already cleaned flow of coarse material or the addition of diluting water. The efficient measuring and control unit warrants that the attrition conditions are reliably maintained for the entire duration of the process and thus creates the preconditions for an effective cleaning action of the attrition process.

Type	*Inner dimension steel container** [mm]	*Height to UK outlet** [mm]	*Surface** [m²]	*Useable volume (UK outlet)** [Liter]	*Diameter of blades** [mm]	*Amount of blades**	*Rotation** [1/min]	*Power** [kW]
RS-05	775	1,000	0.53	530	530	6	197	18.5
RS-10	1,060	1,250	0.95	1,190	700	4	126	35 – 45
RS-20	1,300	1,550	1.33	2,050	900	4	95	55
RS-30	1,500	1,570	1.79	2,810	1,150	4	69	75

** per cell*

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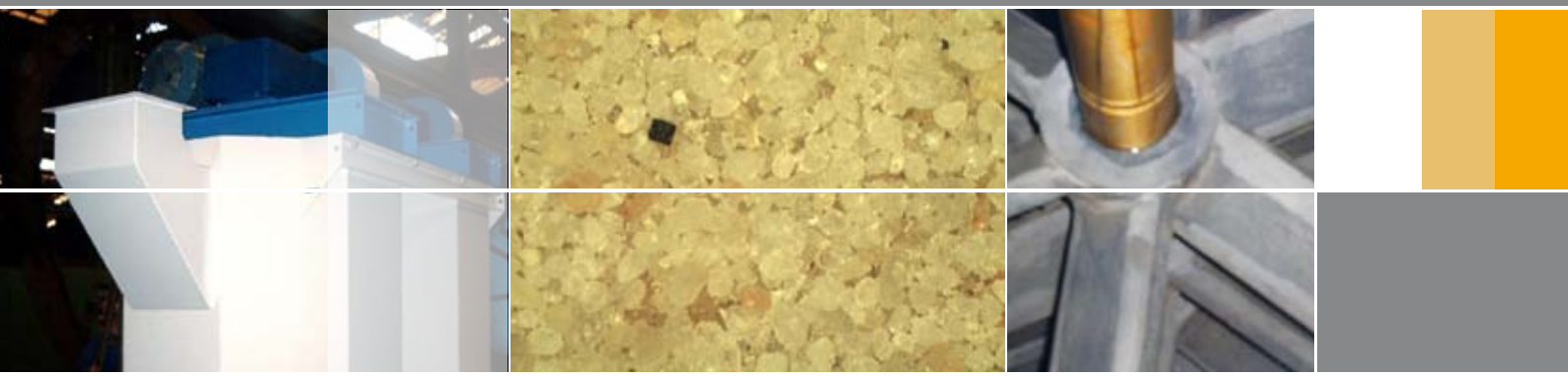
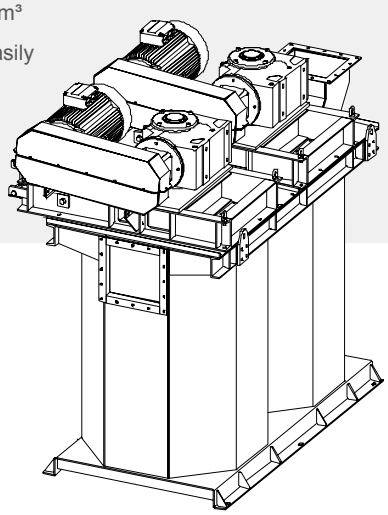
High Performance Attrition Cells AKA-TRIT



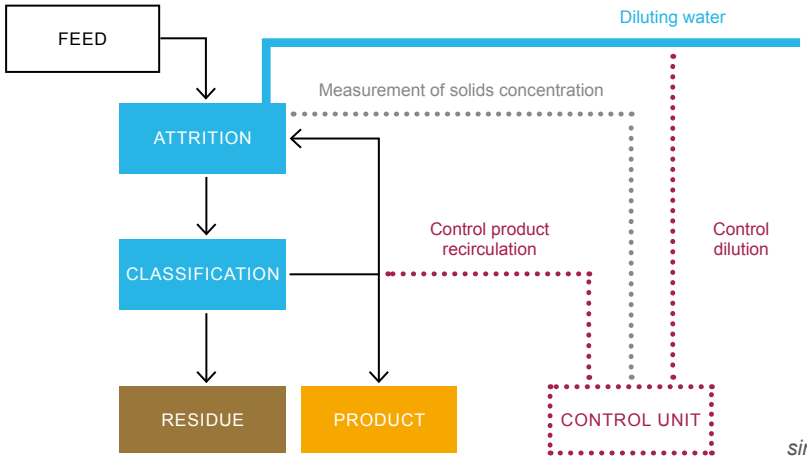
DESIGN FEATURES AND ADVANTAGES

- Tank with vertical agitator and V-belt drive
- 2-, 4- or 6-cell construction with chamber volume each cell 0.5 m³; 1.0 m³; 2.0 m³; or 3.0 m³
- Robust, wear-resistant and low-maintenance construction in steel/stainless steel with easily replaceable wear protection (rubber/PU) for tank and agitator
- Computer-controlled, defined solids concentration
- Connection to existing plant control system is possible
- Retrofitting of existing attrition plants for high-performance attrition is possible



APPLICATIONS

- Processing of ores, minerals and mineral raw materials
- Wet mechanical purification of contaminated soil components
- Conditioning of raw sand



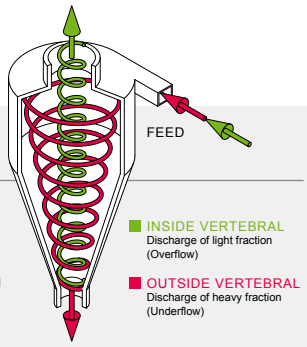
simple flow chart „attrition“

Hydrocyclones AKA-VORTEX and Annular Distributors AKA-SPIDER

Hydrocyclones are important and economically valuable components for wet-mechanical separation and classifying processes of minerals and mineral raw materials – matured construction, compact design and continuously developed and improved. Annular distributers in fully automatic mode allow a homogeneous and equal pressure distribution on every hydrocyclone in operation. AKA-VORTEX and AKA-SPIDER are applied across the industry in various areas: sorting, desliming, closed circuit grinding, solids recovery, classification.

PRINCIPLE OF OPERATION

Centrifugal forces are the effective principles of the separation processes in the hydrocyclones. The suspended particles are thrown radially to the outside. Because of the magnified field of force, high settling rates, fast separation and high load are obtained. Flow promoting designs ensure high accuracy of separation.

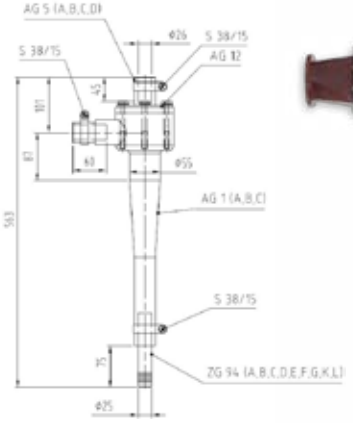


DESIGN FEATURES AND ADVANTAGES

- Optimum separation characteristic at varying operation parameters
- Homogeneous and equal pressure distribution of the suspension on every hydrocyclone in operation
- Long life time of hydrocyclones and distributors due to appropriate selection of material for each application
- Simple in operation
- Fast and trouble-free changing of wear-parts
- Modular system is achieved by using simple connectors and adaptors
- Low weight of single parts
- Easy adaption to changed operation parameters
- FDA approval available > food proof

MATERIALS

- Produced of customized and highly wear-resistant polyurethane, oxide or SiC ceramics, NiHard, titanium
- Coating with high wear-resistant, chemical - and corrosion-resistant materials (rubber, PU ceramic) as an option for all surfaces that come in touch with the suspension



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Hydrocyclones AKA-VORTEX and Annular Distributors AKA-SPIDER

APPLICATIONS

Hydrocyclones are successfully in operation for classification of fine fractions of:

- Minerals (e.g. Kaolin, Feldspar, Talcum, Chalk, Quartz, Gypsum, Bentonite, Zircon)
- Ores (e.g. Iron ore, Bauxite, Zinc ore, Tin ore, Manganese ore, Chromite ore, Niobium-Tantalite-ore)
- Chemical intermediates
- Alumina
- Mineral raw materials and by-products (e.g. foundry sand, slag, Si-SiC-slurry, abrasives)

APPLICATIONS FOR CUT SIZE RANGES d50 FROM 2 µm UP TO 180 µm

TYPES OF AKA-VORTEX

- Hydrocyclone conical
- Batch working hydrocyclone
- High-pressure hydrocyclone
- Hydrocyclone with gritbox
- Annular distributor AKA-SPIDER
- Hydrocyclone 660 mm with changeable PU-Liner
- CBC hydrocyclone

Our hydrocyclones are as various as your requirements. Available standard sizes: 10 mm to 1,200 mm diameter

TYPES AND SIZES OF HYDROCYCLONES

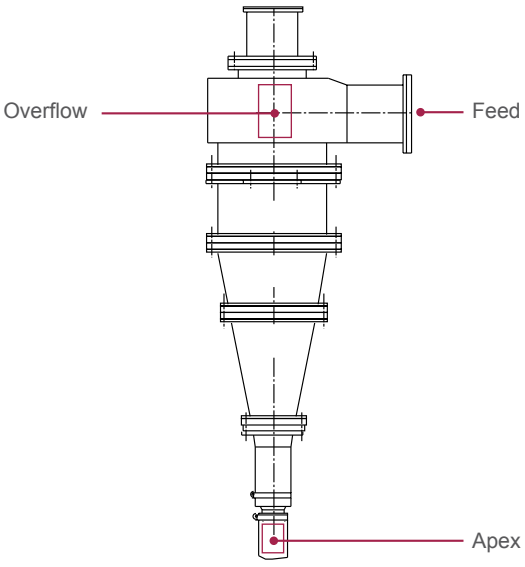
Type Hydrocyclone	*Nominal-Ø mm*	*Cut Size d50 in µm*	*Pressure in bar*	*Capacity in m³/h*
RWK42	20	3 – 5	2.0 – 3.5	0.5 – 0.8
RWS75	35	4 – 8	1.5 – 3.5	0.8 – 2.9
RWS105	50	5 – 15	1.5 – 3.0	2.4 – 7.6
RWT1530	75	12 – 18	1.5 – 2.5	5.5 – 13.5
TRT2128	100	14 – 26	1.5 – 2.5	23 – 58
KRS3128	150	25 – 35	1.5 – 2.5	25 – 60
RWT4118	200	30 – 50	1.0 – 1.7	32 – 67
TRT4118	200	30 – 50	1.0 – 1.7	65 – 135
RWT5118	250	45 – 60	1.0 – 1.7	42 – 103
RWN6518	325	55 – 70	0.8 – 1.5	80 – 150
RWH8124	400	60 – 90	0.7 – 1.3	100 – 280
NSW 92.30	450	65 – 95	0.6 – 3.0	130 – 475
RWZ 102.30	500	80 – 120	0.5 – 1.1	160 – 490
RWS 150.28	750	100 – 150	0.4 – 1.2	210 – 720
RWS 240.28	1,200	120 – 180	0.4 – 1.0	500 – 1,500

Types of AKA-VORTEX Hydrocyclones

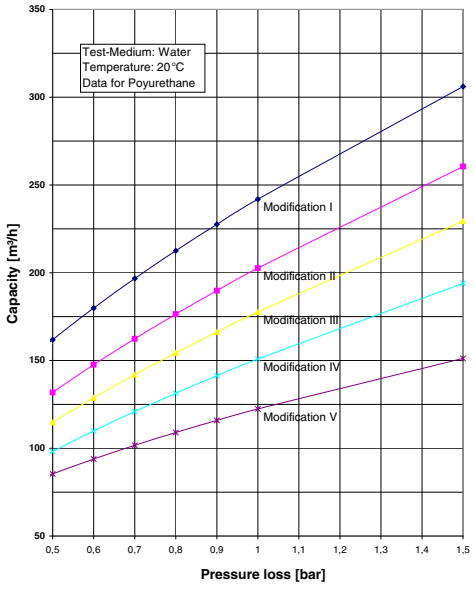
MODULARITY OF THE COMPONENTS

The modular arrangement on the building block principle makes the series AKA-VORTEX flexible and adaptable to different operating conditions. Due to the possibility to combine different components of the AKA-VORTEX in different versions, several modifications with respective flow rates and results can be created from a series.

Example AKA-VORTEX RWH8124:
Drawing



Capacity / Throughput curves for hydrocyclone



SPECIAL VERSIONS OF THE AKA-VORTEX

With our modern equipped laboratory and a close cooperation with universities and research institutes, we can warrant a consistently high level of development in process engineering and technology. In addition to deepening our know-how, we develop and improve processes and equipment and so can offer the ultimate in flexible applications to our customers.

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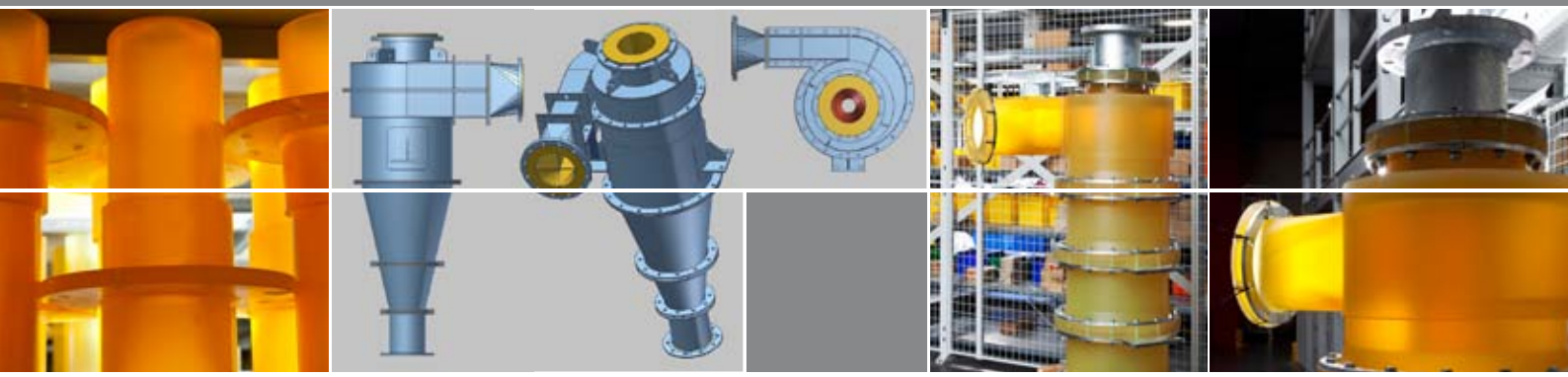
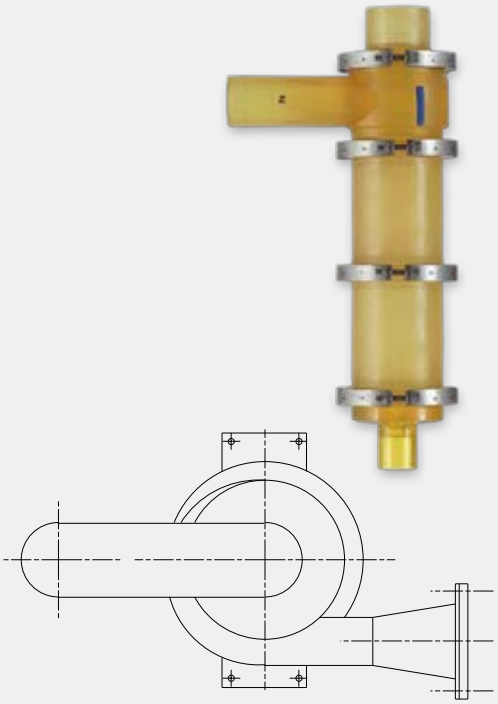
Types of AKA-VORTEX Hydrocyclones



FLAT-BOTTOM HYDROCYCLONES AKA-VORTEX CBC

Convection flow, resulting from high centrifugal forces in the upper part and low centrifugal forces in the lower part of the hydrocyclone, transport pressure-compensated particles on the flat ground to the middle and allow the discharge with little risk of blockage.



HYDROCYCLONE 660 MM PU-LINER

The hydrocyclone is maintenance-friendly equipped with a removable, highly wear-resistant PU-Liner. For the PU-Liner different qualities according to the requirements can be selected and allow accordingly applications under a variety of conditions and temperature environments.

Hydrocyclone with PU-Liner

Hydrocyclone Control Systems AKA-TRONIC

AKA-TRONIC is a patented hydrocyclone control system for recovering fine fraction of sands and for dewatering. AKA-TRONIC is used in industries working with stones and soils in order to prevent that too many fine fractions of the sands (Fraction < 150 µm) enter the sewage ponds and thickener and thus reduce the production yield.

PRINCIPLE OF OPERATION

The hydrocyclones are controlled by the AKA-TRONIC that they carry out at their optimal operating point. The cut size can vary depending on the application (normally configured to 30 µm), resulting in a high concentration of the underflow. The thick discharge of the hydrocyclones generates a material bed caused by bridging over the screens on the dewatering screening machine. Residual moistures of up to 17 weight-% are reached. The overflow of hydrocyclones goes to the sewage pool or directly into the process water circulation.

DESIGN FEATURES AND ADVANTAGES

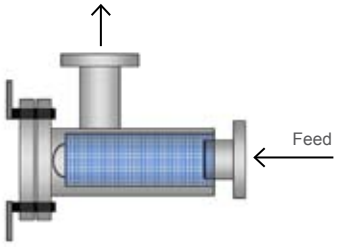
- Comapct and space-saving construction
- Continuously low cut size, even with fluctuating solids content in the feed
- Improved output results due to automatic adaption of sand compositions and quantities
- Controlled adjustment of different grain composition
- High rate removal of solids
- Uniform thickening in the hydrocyclone underflow, even with fluctuating input concentration
- Effective dewatering of the hydrocyclone underflow
- Discharge of downstream dewatering systems
- Savings in consumption of flocculants
- Increase in economic efficiency

APPLICATIONS

- Sand and gravel pits
- Quarries
- Slag processing
- Soil washing

Antiblocking Filter AKA-STRAINER

AKA-STRAINER is a drum-shaped protective screen and is used to prevent blockages in hydrocyclones. Antiblocking filters are available in various sizes and materials.



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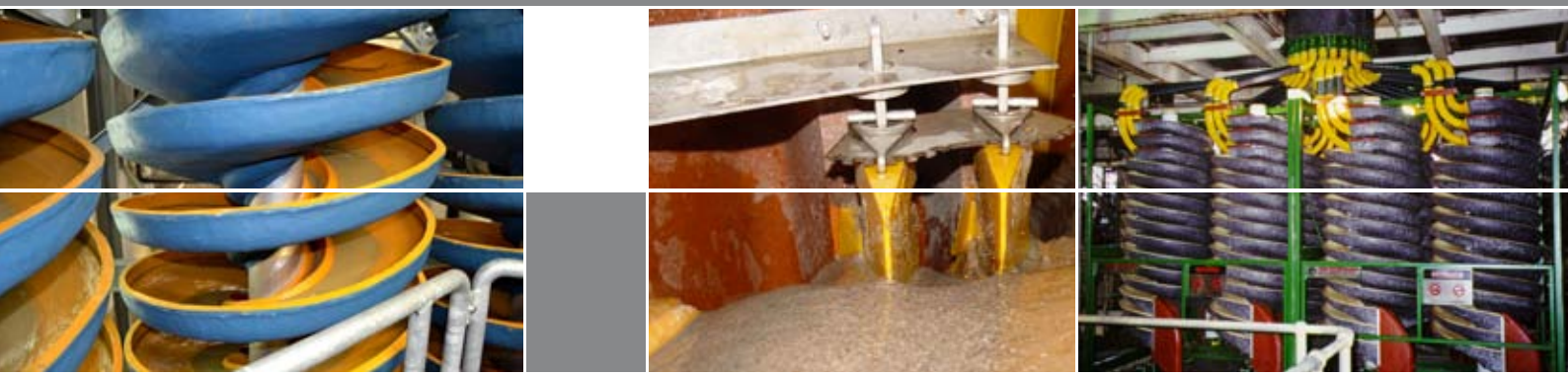
Spirals AKA-SPIN



Spirals are sorting devices which separate the materials according to their different densities. They can be used for a grain size range from approx. 0.04 mm to approx. 2 mm, with a throughput per spiral of approx. 1–4 t/h. If a higher throughput is required, 2 or 3 spirals can be combined to form one column. Several spiral columns can be joined to form banks of 2, 4, 6 or 8 with one distributor for the inlets and collector chutes for the outlets. Different types of spirals for heavy, middling and light density products.

PRINCIPLE OF OPERATION

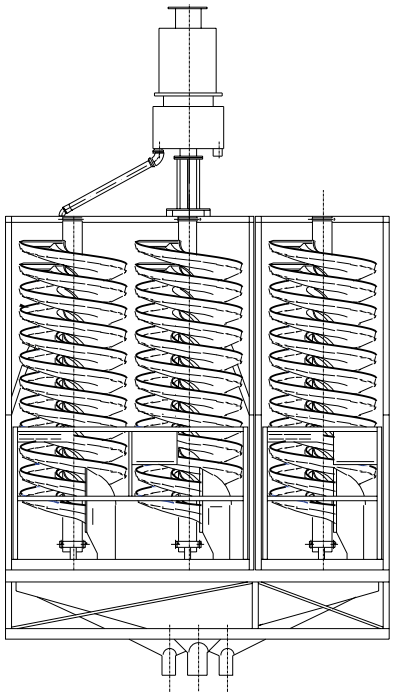
The slurry (content 10 – 40% solids depending on application) is fed into the spiral from the top. Spread on the spiral bottom, it moves down by gravity. A transverse flow is directed inwards on the sluice bottom or outside on the slurry surface is superimposed on the main flow. This combination results in a separation of the particles contained in the suspension, depending on their density. Particles with a lower specific gravity, such as wood, coal or organic matter, are concentrated in the outer areas of the flow. Particles with a higher specific gravity are transported towards the spiral axis.

DESIGN FEATURES AND ADVANTAGES

- Separation of lightweight fraction by force of gravity
- Separation of heavy minerals from quartz sands
- Separation of up to 3 fractions: heavy, middling and light density products

APPLICATIONS

- Sorting of ores and minerals
- Coal processing
- Decoaling of construction sands
- Soil remediation by soil washing
- Processing of municipal waste



Washing and Elutriation Drum AKA-DRUM

AKA-DRUM is used for dissolving raw materials. Processing of raw material begins in the washing and elutriation drum. A good washing and elutriation effect is a prerequisite for a high-quality product. AKA-DRUM is manufactured in various sizes. Rugged designs for mining, anti-abrasion coatings of rubber or highly alloyed steel ensure a long service life.

PRINCIPLE OF OPERATION

The internal components, such as lifting beams, struts and chain stirrers produce the friction and turbulence required for a good disintegration of the raw material. All the devices of the WLT series can be equipped with hydraulic or mechanical drives.

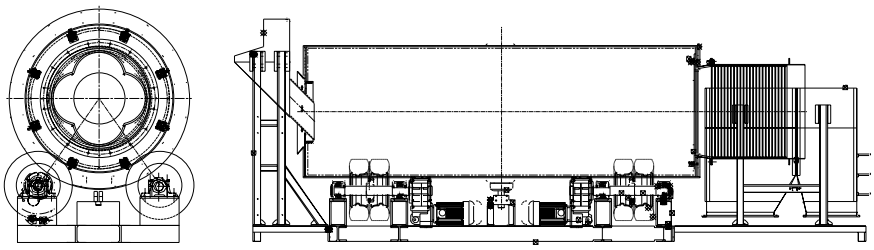
DESIGN FEATURES AND ADVANTAGES

- Rugged design for mining
- Long service life
- High wear-resistance
- Effective resolution of the raw material
- Sizes: Diameter 1.25 m – 3.0 m

Type	*Diam. mm*	*Length mm*	*Motor kW*	*Capacity t/h*
WLT 125/375	1,250	3,750	11	10 – 30
WLT 150/450	1,500	4,500	15	20 – 50
WLT 175/525	1,750	5,250	22	30 – 70
WLT 20/60	2,000	6,000	37	50 – 120
WLT 25/75	2,500	7,500	90	80 – 200
WLT 30/90	3,000	9,000	135	100 – 350

APPLICATIONS

- Washing and elutriation of raw materials
- Processing of ores, minerals and mineral raw materials
- Glass, foundry and industrial sands
- Kaolin and feldspar



Cross-section and side view of „AKA-DRUM“

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Upstream Classifiers AKA-SIZER Type TAK

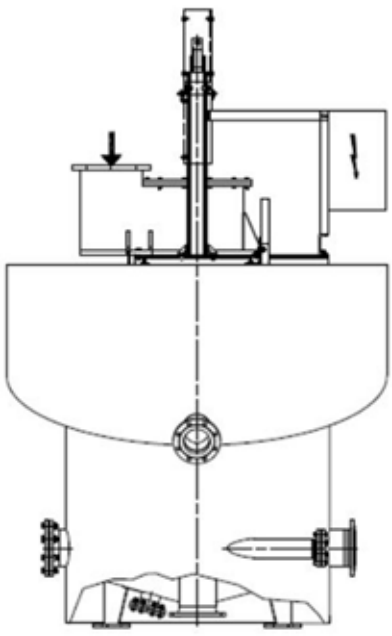
AKA-SIZER type TAK produce products which are classified sharply, like silica sands for glass manufacture, core sands and molding sands for foundries and special sands which are required for the most diverse applications. The various TAK types ensure cut sizes in the range from 0.1 mm to 1.0 mm, depending on various feed quantities of the raw material.

PRINCIPLE OF OPERATION

An optimum distribution of the upstream water via nozzle plate results in a homogenous classifying bed, which enables a precise separation. By varying the water feed and exchangeable nozzles, different sharp separation cut sizes are possible. A discharge regulation system which is controlled by the level of the classifying bed ensures a uniform cut size even in the case of fluctuations of the feed quantities, and of the grain size distribution.

DESIGN FEATURES AND ADVANTAGES

- Sharply classified products (cut size 0.1 mm – 1.0 mm)
- Consistently high cut sizes despite fluctuating quantity and particle size distribution



APPLICATIONS

- Glass, foundry and industrial sands
- Special sands
- Several ores

Single-chamber device type TAK	*TAK 091*	*TAK 121*	*TAK 161*	*TAK 191*	*TAK 222*	*TAK 262*	*TAK 303*
Size, diameter in m	0.9	1.20	1.6	1.9	2.2	2.6	3.0
Cross-section surface in m²	0.6	1.25	2.0	2.86	3.9	5.1	7.1

Upstream Classifiers AKA-SIZER Type TAS

AKA-SIZER type TAS produce a clean sorting of fine-grained bulk solids according to the density and to the principle of the fluidized bed.

PRINCIPLE OF OPERATION

Uniform distribution of upstream water via a nozzle plate results in a homogeneous classifying bed. The light goods are separated as swimming product in the overflow in this classifying bed. The heavy particles will be deducted on the discharge control in the underflow.

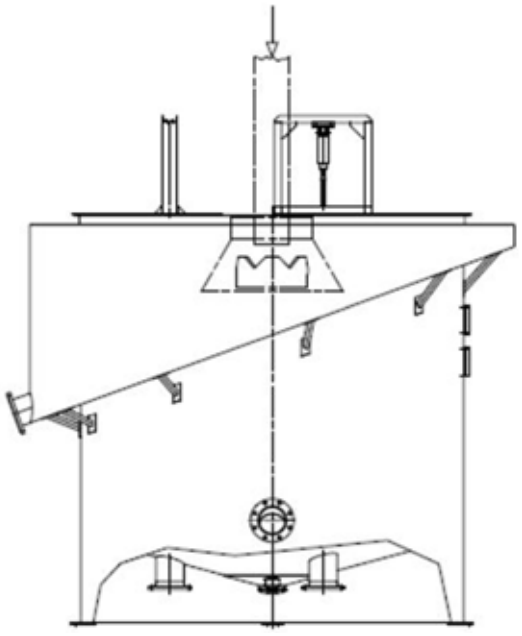
DESIGN FEATURES AND ADVANTAGES

– Clean sorting of fine grained bulk materials

APPLICATIONS

– Decoaling of sands
– Processing of ores

Single-chamber device type TAS	*TAS 091*	*TAS 121*	*TAS 161*	*TAS 191*	*TAS 222*	*TAS 262*	*TAS 303*
Size, diameter in m	0.9	1.20	1.6	1.9	2.2	2.6	3.0
Cross-section surface in m²	0.6	1.25	2.0	2.86	3.9	5.1	7.1



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Free-fall Classifiers AKOREL

The AKOREL corrects the grain size of the natural sand deposit according to the grain size distribution required by the customer.

PRINCIPLE OF OPERATION

One or two quality sands within the desired grain size range can be blended by classifying into 6 to 16 individual grain size fractions via user programmable control unit. Adaption to customized recipe sands and standards for industrial sands is possible at any time and easily achievable by setting the program. By electronically controlled blending of the single fractions, the required particle size distribution for two controlled sand products is achieved. The surplus sand fraction is discharged as uncontrolled sand.

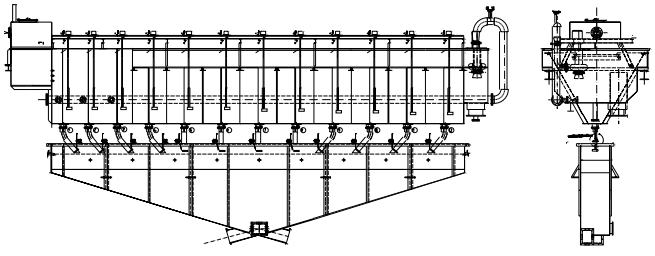
DESIGN FEATURES AND ADVANTAGES

- Highquality products according to customers requirements
- Programmable control
- Adaptation to customer specific grades and standards
- Formulations can be saved and called up
- Length: 6 m – 16 m
- Width: 2.1 m – 3.5 m

APPLICATIONS

- Sand and gravel pits
- Glass, foundry, industrial and special sands
- Quarries

Type	*Length mm*	*Width mm*	*Capacity t/h*
LFK 21 / 60	6,000	2,100	40 – 70
LFK 28 / 80	8,000	2,800	60 – 100
LFK 28 / 100	10,000	2,800	80 – 150
LFK 28 / 120	12,000	2,800	100 – 180
LFK 35 / 80	8,000	3,500	120 – 280
LFK 35 / 100	10,000	3,500	140 – 300
LFK 35 / 120	12,000	3,500	160 – 400
LFK 35 / 160	16,000	3,500	200 – 500



High Performance Thickeners AKA-SET

AKA-SET is a special equipment for thickening and process water treatment. Main application for the AKA-SET is the treatment of process water, the thickening of suspensions and the reduction of sludge volume.

PRINCIPLE OF OPERATION

The flow routing of the flocculated feed slurry in the filtering zone in counter-current to the sedimenting particles causes the formation of macro flocs. These flocs are sedimented at a higher speed than the micro flocs of conventional thickeners. This results in a higher loading rate per unit settling area and smaller thickener diameters, compared to the traditional static thickeners.

> HIGH LOADING RATE PER UNIT SETTLING AREA

A sufficiently dimensioned compression zone with a multi-arm raking mechanism ensures a high degree of thickening. The raking bars ensure an extremely good subsequent dewatering in the thickening zone.

> HIGH AND UNIFORM SLUDGE CONCENTRATION

The clarified liquid and filtering zone which is monitored by instrumentation and control engineering devices ensures high clarification efficiency and a good clarified flow quality.

> HIGH CLARIFIED FLOW QUALITY

Optional: Skimmer system

DESIGN FEATURES AND ADVANTAGES

- High loading rate per unit settling area
- Huge throughput
- Space-saving design
- Consistently high sludge concentration
- Fully automatic operation
- Good utilization of the flocculants
- Flexible adaption to varying operating conditions
- Low operating costs
- Minimum maintenance requirements
- Produced of customized and corrosion-resistant materials (steel, stainless steel)
- Coating with chemical and corrosion-resistant materials as an option (rubber, PU ceramic)
- Diameter: 2.8 m to 18 m

Equipment + Process Design

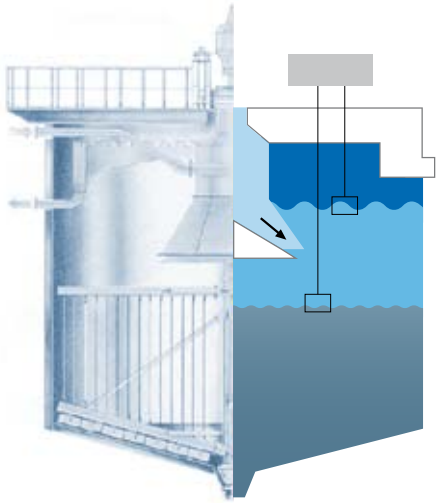
High Performance Thickeners AKA-SET

APPLICATIONS

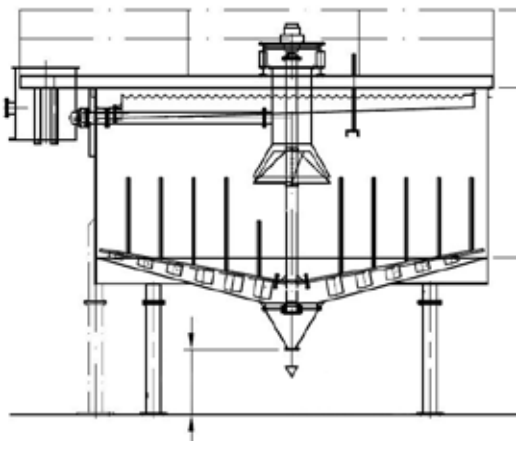
- Processing of ores, minerals and mineral raw materials
- Intermediate chemical products
- Alumina
- By-products
- Waste water treatment

Type	*Diameter (m)*	*Height (m)*	*Motor power (kW)*
A 28/150	2.8	6	0.37
A 40/150	4	6	0.75
A 60/150	6	6.5	1.5
A 80/150	8	8.5	2.2
A 100/150	10	9	4
A 120/150	12	10	4
A 140/150	14	11	7.5
A 160/150	16	12	9.2
A 180/150	18	15	15

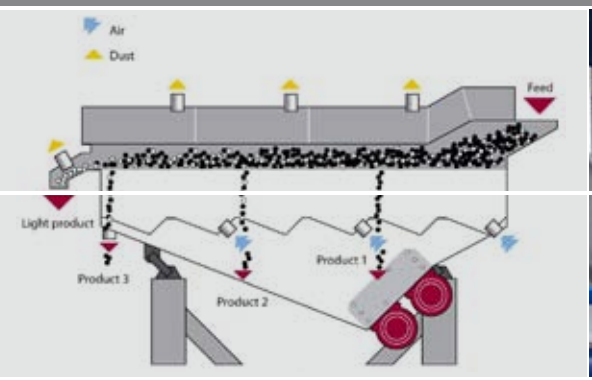
starting at A80 also as version flat bottom mounted on concrete foundation

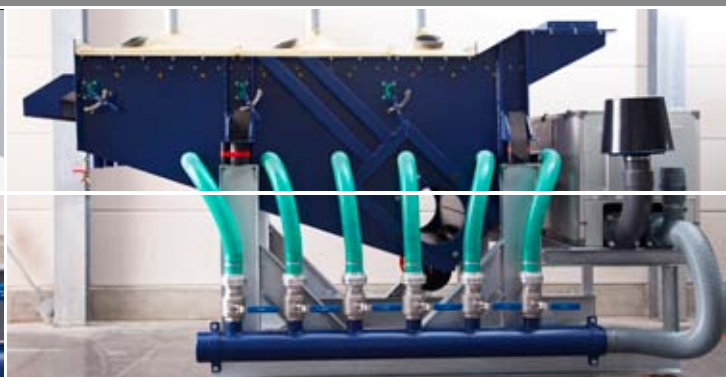


Instrumentation and control equipment
Clarified fluid zone
Suspension inlet
Filtering zone
Compression zone



Dry Separation AKA-FLOW





AKA-FLOW is a dry working gravimetric sorting device and used for preliminary separation and enrichment of materials of different densities as a possible pre-stage to the wet mechanical separation processes. Limited availability of water in arid areas requires additions to the wet mechanical processing technology. Dry gravity separation ensures an eco-friendly processing. In addition there are further areas of applications such as processing of fine steel slags as well as dry separation of light materials (amongst others separation of sand from wood residues, shredder light fractions and metal separation from cable scrap).

PRINCIPLE OF OPERATION

The functionality of AKA-FLOW is based on a combination of an air fluidized bed with a specially developed sifter. Studies with different raw materials have shown outstanding performance both in terms of throughput, as well as classifying.

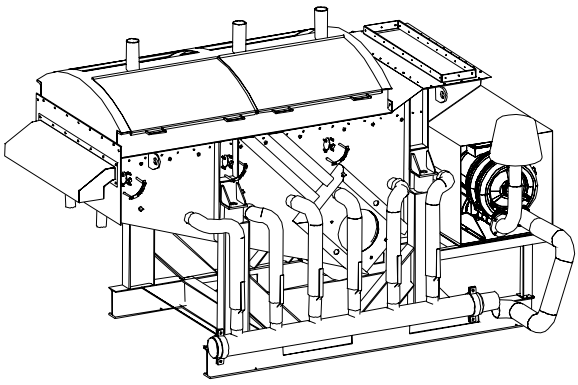
The optimum grain size is ranging from 30 µm to 2 mm. Throughput ranges, depending on the material, between 3 – 6 t/h and 9 – 18 t/h with units of 400 mm and 1,200 mm width.

DESIGN FEATURES AND ADVANTAGES

- Fully dry working density sorting methods for production of first concentrates
- Pre-enrichment for subsequent wet-processing
- Enables classification in arid and permafrost areas
- Economic separation at high throughput rates (3 to 6 t/h and 9 – 18 t/h)
- Grain size 30 µm – 2 mm
- Pre-treatment to reduce transport costs
- Eco-friendly mining
- Low energy consumption

APPLICATIONS

- Coal
- Stainless steel slag
- Different iron ores
- Heavy minerals in varying sand deposits
- Salt
- Quartz / feldspar
- Barite
- Ilmenite
- Primary and secondary tantalite ore



Equipment + Process Design

Recovery of Fine Sand AKA-SAND

AKA-SAND, a compact and semi-mobile processing plant, supplemented with the patented hydrocyclone control system AKA-TRONIC, is used in sand and gravel industries for desliming and dewatering of sand/water suspensions coming from a suction excavator without losing the fine sand.

PRINCIPLE OF OPERATION

The sand/water suspension coming from the suction excavator is fed directly to the under deck of a double deck screen, developed especially for this purpose. On this deck the sand is classified (e.g. at 4 mm) and dewatered. The cut through will be deslimed by the PLC controlled hydrocyclones (e.g. 63 µm) and dewatered on the upper deck. The waste water of the hydrocyclones is recycled directly to the pond. Cutting point can be variable.

AKA-SAND is kept to work at the optimum operational point by widely varying feed conditions. Therefore a high degree of separation and a minimum of fine sand losses are reached. Besides the environmental impact, also the operational costs of ponds and / or clarifying thickeners have recently gained significant interest.

DESIGN FEATURES AND ADVANTAGES

- Semi-mobile, transportable
- Continuously low cut size (20 µm – 150 µm)
- Controlled adjustment of different grain size compositions
- Low moisture content of the products
- Very high yield
- Minimal loss of fine sand
- Easy handling
- Radio-controlled
- Discharge of fresh water balance

APPLICATIONS

- Wet mining processes with varying feed conditions
- Sand and gravel pits
- Glass, foundry, industrial and special sands

Mobile Residue Processing Plant MoReSa 4.0


MoReSa 4.0 is a mobile residue processing plant for the separation of organic and light-weight components, especially from residues as they occur in the municipal sector. Individual system designs and versions can be provided, depending on customers individual requirements. MoReSa 4.0 may be upgraded by applying additional modules for the treatment of road sweepings, also with leaves and branches and for the treatment of grit from sweeping oversize particle. Process water recirculation is possible with a waste water module.

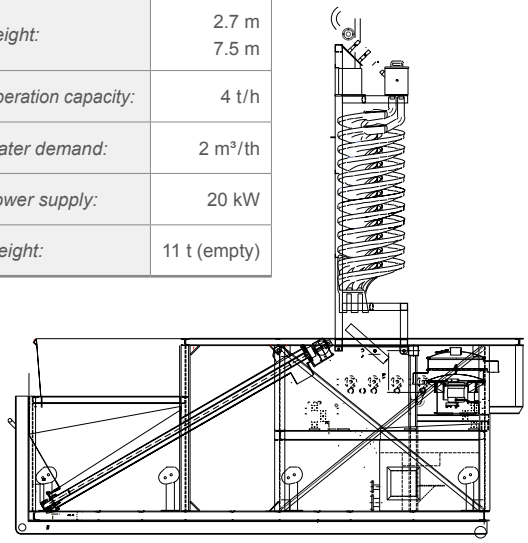
PRINCIPLE OF OPERATION

For this field of application AKW Equipment + Process Design uses the spiral separation method AKA-SPIN.

DESIGN FEATURES AND ADVANTAGES

- Specific sorting according to density of materials
- High cleaning performance: ignition loss < 3 %
- Increased mineral recovery through low cut size
- Independent on variations of material feed
- Modular waste water purification is possible
- Few moving parts
- Wear-resistant design
- Reliable components

Length:	7 m
Width:	2.5 m
Height:	2.7 m 7.5 m
Operation capacity:	4 t/h
Water demand:	2 m³/th
Power supply:	20 kW
Weight:	11 t (empty)



APPLICATIONS

- Sand trap material
- Sewer rinsing sand
- Catch pitch residues
- Road sweepings
- Grit from sweepings, split
- Municipal waste

Equipment + Process Design

Highly Mobile Residue Processing Plant MoReSa 10.0

MoReSa 10.0 is a highly mobile processing plant, mounted on two semitrailers, to recover recyclable mineral fractions (sand, grit) based on wet-mechanical separation processes.

PRINCIPLE OF OPERATION

Innovative process technology in a highly mobile plant concept with water processing equipment for recirculation.

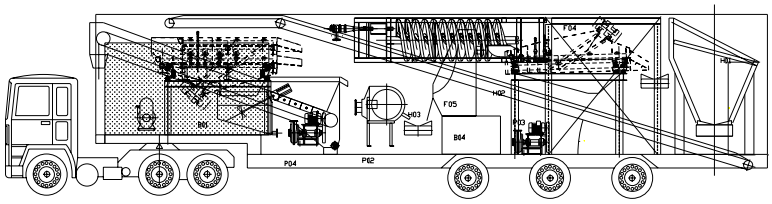
DESIGN FEATURES AND ADVANTAGES

- Specific sorting according to density of materials
- High cleaning performance: ignition loss < 3 %
- Increased mineral recovery through low cut size
- Independent on variations of material feed
- Integrated modular waste water purification
- Wear-resistant design
- Reliable components
- Reusable fractions:
  Sand: 0.05 mm – 2 mm | Split: 2 mm – 20 mm
- Residues: Oversize particles, organic material, ultra-fine material

	Process section	*Water processing*
Length:	13 m	13 m
Width:	3 m	2.5 m
Height in operation:	4 m 8.5 m	4 m
Operational capacity:	10 t/h	30 m³/h
Water demand:	3 m³/th	
Power supply:	60 kW	60 kW
Auxiliaries:		flocculant, lime

APPLICATIONS

- Sand trap material
- Road sweepings
- Sewer rinsing sand



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E-Mail*:

Project name:

Date:

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- ☐ Service package “Engineering”
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