

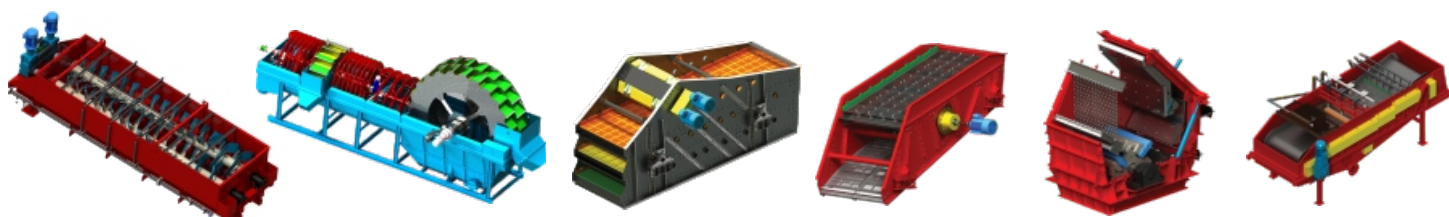
Design and construction of aggregates processing and refining machines



We offer:

- Vibratory sieves
- Sword washers
- Wheel dehydrators
- Hydromators
- Impact crushers
- Hydrocyclones
- Wheel-ribbon dehydrators
- Hoppers
- Belt conveyors
- Processing line „turnkey”

Hydro-Tech-Sort Sp. z o.o.



About us

Hydro-Tech-Sort is within the leading companies handling the production of the mineral processing machines. Since many years we have been helping our clients to achieve success.



We offer the machines and the technical support to all processes going on in quarries, gravel and sand processing plants. Our constructing team and well equipped production facilities allows to construct „made-to-measure“ machines with all requirements demanded by our Customers and in chosen RAL colour palette.

What distinguishes us:

We keep developing

We still develop our machines by improving their efficiency and at the same time making costs of their exploitation lower. We attend conferences and professional exhibitions.

Counselling

We will help you to choose proper technology and processing procedures. We will train your staff how to service and preserve machines.

Short execution time

Our design-commercial section is well developed so we can give you the ready and exact solution in a short time.

Warranty and reliability

We use only the best materials. Our machines are given from 12 up to 24 months warranty.

Service

Stopping work can be expensive to our clients so we will provide repair crew and all necessary spare parts as soon as possible.

Financing

Acquisition of loans and leasing. We offer help by attaining European funds. We optionally also offer machine hiring.



Belt conveyors

Conveyors are the most commonly used continuous or sequential transport equipment in aggregate processing lines. Depending on the transported aggregate, the place of installation in processing line and the process requirements – belt conveyors can be made as open or covered, on solid supports or on the wheel chassis, as unidirectional or reversible.

We offer conveyors with belt width 500 ÷ 2000mm. Our conveyors are equipped with necessary fittings to make their work fluent: hoppers, scrapers, platforms, safety switchers, acoustic signallers, safety screens.

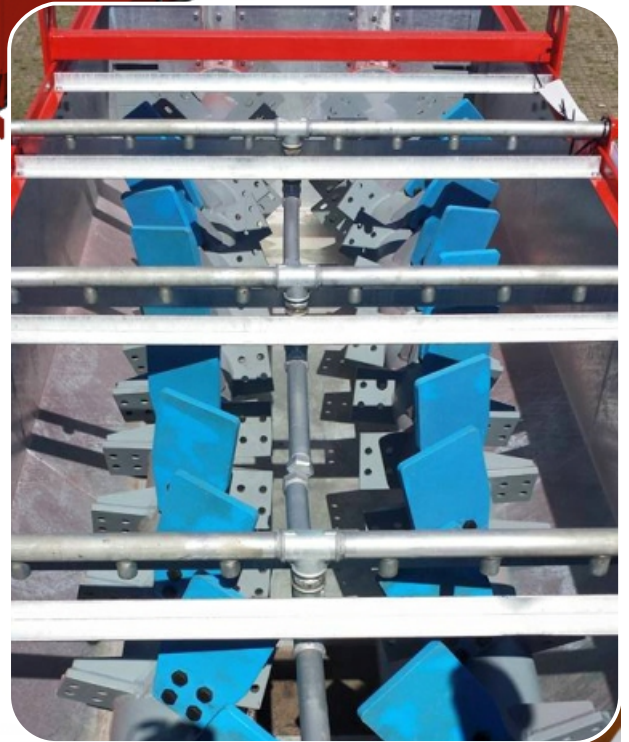
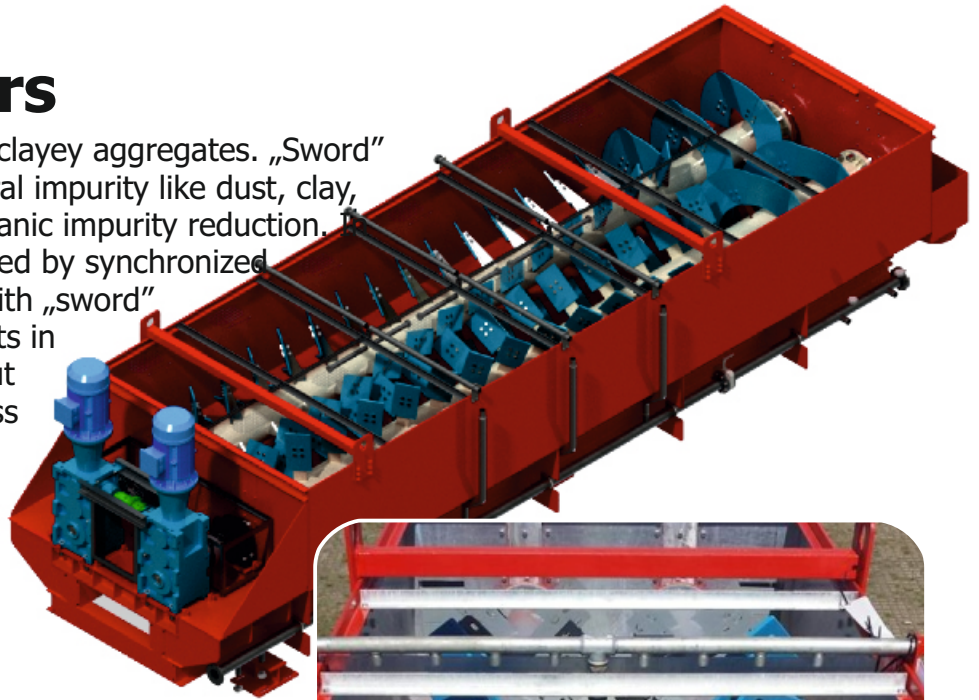
Depending on the kind and parameters of the aggregate and required effectiveness we fit to it drive units, belts and rollers.

Width 0,5 m ÷ 2 m.
Lenght 5m ÷ 50 m.
Stationary and movable.



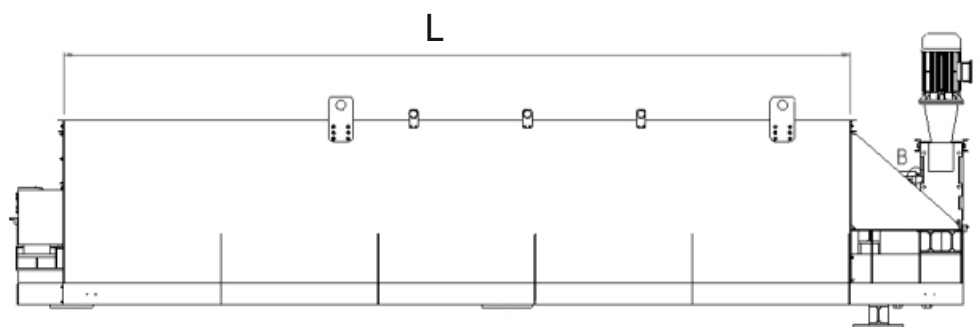
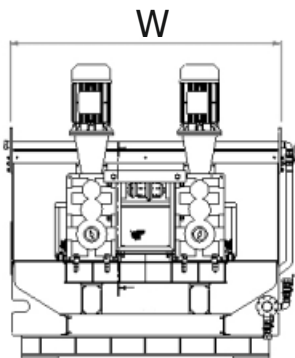
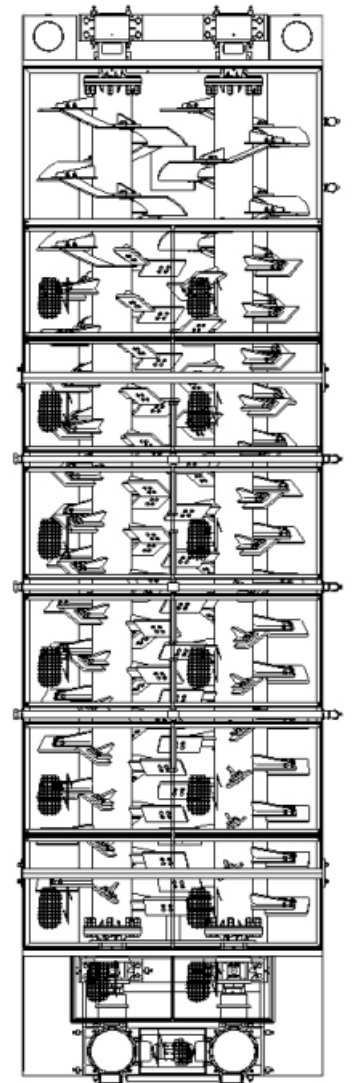
„Sword“ washers

They are necessary in processing clayey aggregates. „Sword“ washers allow to remove all mineral impurity like dust, clay, loam and also allow to sizable organic impurity reduction. In this machine aggregate is processed by synchronized contra-rotating rollers equipped with „sword“ settings on their edges. This results in complete grinding and washing out of the impurity through the process of friction between the aggregate and „swords“.

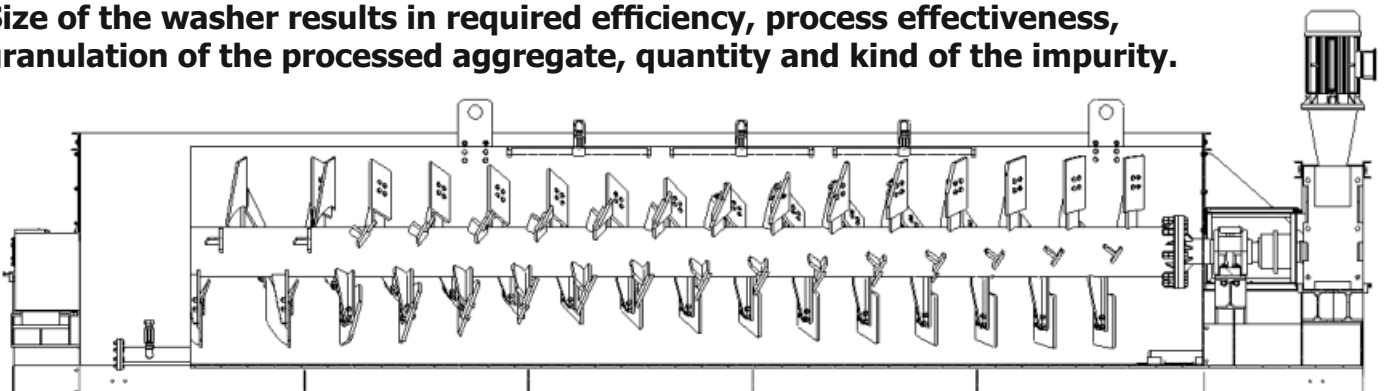


Parameters of the basic dual-shaft washer, type PB2

Type\Parameter	Bath width [W]	Bath length [L]	Max. grain of feed	Max. aggregate efficiency	Power
	mm	mm	mm	t/h	kW
PB2-1600/4000	1600	4000	30	30	2 x 7,5
PB2-1600/4600	1600	4600	40	40	2 x 11
PB2-1600/4600	1600	4600	50	50	2 x 15
PB2-1800/5000	1800	5000	60	70	2 x 15
PB2-2100/6000	2100	6000	80	80	2 x 15
PB2-2100/6000	2100	6000	80	100	2 x 18,5
PB2-2100/6000	2100	6000	90	120	2 x 22
PB2-2400/6000	2400	6000	90	150	2 x 30
PB2-2400/6000	2400	6000	90	200	2 x 37
PB2-2400/6000	2400	6000	90	250	2 x 45
PB2-2400/8000	2400	8000	90	150	2 x 37
PB2-2400/8000	2400	8000	90	200	2 x 45
PB2-2700/8000	2700	8000	90	250	2 x 45
PB2-2700/8000	2700	8000	90	300	2 x 55

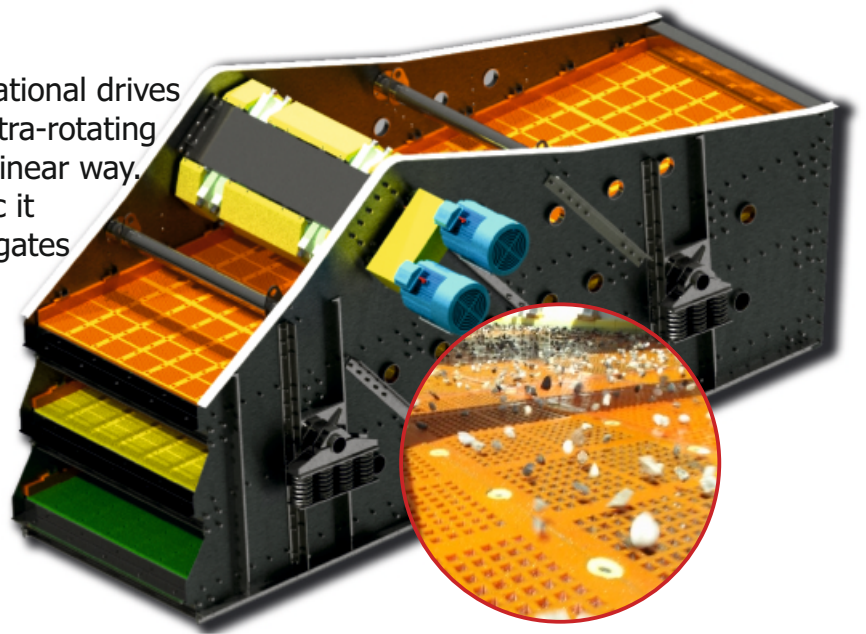


Size of the washer results in required efficiency, process effectiveness, granulation of the processed aggregate, quantity and kind of the impurity.



Vibratory sieves

They are equipped with two sets of vibrational drives fixed to special bar built in to sieve. Contra-rotating drives make the machine vibrate in the linear way. As the machine may attain high dynamic it allows to use it in classification of aggregates in the whole range of their granulation, including very small material fractions and aggregates with high anisometry. Such vibration mode allows to dehydrating and removing silts.



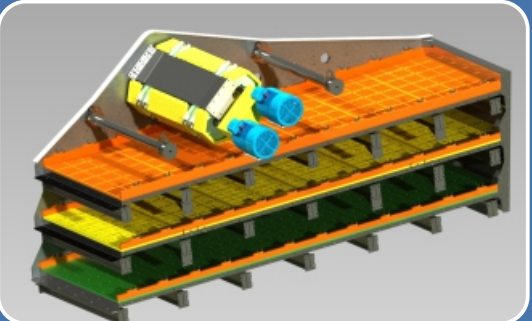
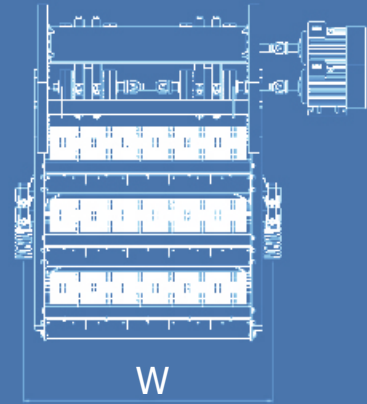
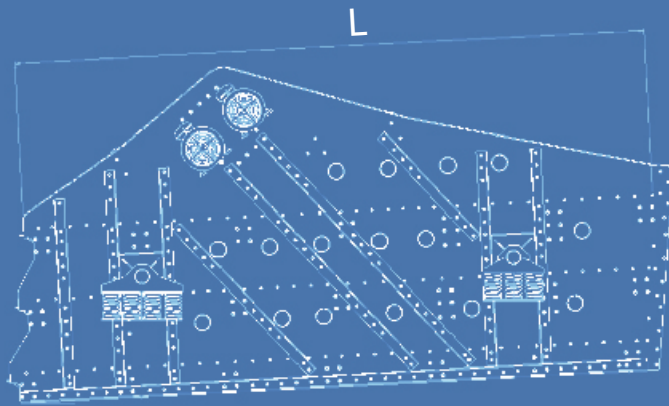
We produce following sieves:

**Decks 1 ÷ 3,
Width 1,0 m ÷ 2,4 m,
Lenght 3m ÷ 7m.**

Screens:

- steel
- polyurethane,
- grate (grizzly),
- bars





Parameters of basic vibratory sieves

Type\Parameter	Sieve width [W]	Sieve length [L]	Number of decks	Power	Max. aggregate effectiveness	Kind of drive
	mm	mm		kW	t/h	
WSL 1-1,5/3,0	1500	3000	1	2 x 3	30	NW45
WSL 1-1,5/4,0	1500	4000	1	2 x 5,5	50	NW65
WSL 1-1,8/5,0	1800	5000	1	2 x 11	60	NW90
WSL 1-2,0/5,0	2000	5000	1	2 x 11	80	NW90
WSL 1-2,0/6,0	2000	6000	1	2 x 15	120	NW90
WSL 1-2,1/6,0	2100	6000	1	2 x 15	130	NW90
WSL 1-2,4/6,0	2400	6000	1	2 x 18,5	150	NW100
WSL 1-2,4/7,0	2400	7000	1	2 x 22	180	NW100
WSL 2-1,5/3,0	1500	3000	2	2 x 5,5	80	NW45
WSL 2-1,5/4,0	1500	4000	2	2 x 7,5	100	NW65
WSL 2-1,8/5,0	1800	5000	2	2 x 11	120	NW90
WSL 2-2,0/4,5	2000	4500	2	2 x 11	130	NW90
WSL 2-2,0/5,0	2000	5000	2	2 x 15	180	NW90
WSL 2-2,0/6,0	2000	6000	2	2 x 18,5	220	NW100
WSL 2-2,1/6,0	2100	6000	2	2 x 22	240	NW100
WSL 2-2,4/6,0	2400	6000	2	2 x 22	270	NW100
WSL 2-2,4/7,0	2400	7000	2	2 x 22	300	NW120
WSL 3-1,5/3,0	1500	3000	3	2 x 7,5	120	NW45
WSL 3-1,5/4,0	1500	4000	3	2 x 11	180	NW65
WSL 3-1,8/5,0	1800	5000	3	2 x 15	200	NW90
WSL 3-2,0/5,0	2000	5000	3	2 x 15	260	NW90
WSL 3-2,0/6,0	2000	6000	3	2 x 18,5	320	NW100
WSL 3-2,1/6,0	2100	6000	3	2 x 22	340	NW100
WSL 3-2,4/6,0	2400	6000	3	2 x 22	420	NW100
WSL 3-2,4/7,0	2400	7000	3	2 x 30	480	NW120

Vibrational-rotating sieves

They are excited by one pair of vibration drive fixed to the sieve sides. Depending on their installation one can vibrate circular or elliptic. And depending on the direction of motor rotation and vibration amplitude of the machine, it can be used for protective riddle, preliminary sand shakeout and in classification of stone aggregates with medium and thick granulation in dry or wet processes.

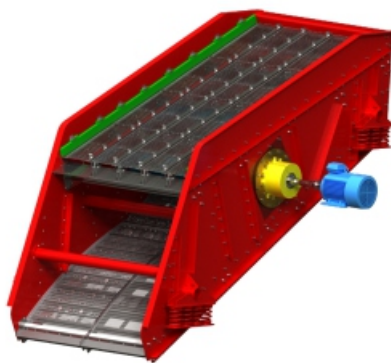
We offer following sieves:

Decks 1 ÷ 3,
Width 1,2m ÷ 2,4m,
Lenght 2m ÷ 7m.

Powering drives by HTS,

Screens:

- steel
- polyurethane,
- grate (grizzly),
- bars
- special.



Parameters of basic rotating/rotational sieves, type WSR

Type \ Parameter	Sieve width	Sieve lenght	Number of decks	Max. aggregate efficiency	Power
	mm	mm		t/h	
WSR 1- 1,5/3,0	1500	3000	1	30	7,5
WSR 1-1,5/4,0	1500	4000	1	50	11
WSR 1-2,0/5,0	2000	5000	1	80	22
WSR 1-2,0/6,0	2000	6000	1	120	22
WSR 1-2,4/6,0	2400	6000	1	150	30
WSR 1-2,4/7,0	2400	7000	1	180	37
WSR 2-1,5/3,0	1500	3000	2	80	11
WSR 2-1,5/4,0	1500	4000	2	100	18,5
WSR 2-2,0/5,0	2000	5000	2	180	30
WSR 2-2,0/6,0	2000	6000	2	220	30
WSR 2-2,4/6,0	2400	6000	2	270	37
WSR 2-2,4/7,0	2400	7000	2	300	45
WSR 3-1,5/3,0	1500	3000	3	120	15
WSR 3-1,5/4,0	1500	4000	3	180	22
WSR 3-2,0/5,0	2000	5000	3	260	30
WSR 3-2,0/6,0	2000	6000	3	320	37
WSR 3-2,4/6,0	2400	6000	3	420	45
WSR 3-2,4/7,0	2400	7000	3	480	55

WSLO Sieves (vibrating, linear, dehydrating)

The sieves are an ideal solution for sludge dewatering, solid fraction recovery, wet sieving of fine fractions as well as mud and mule. In the process line they are placed behind washers where hydraulic transport is used.

Width 0,6m ÷ 2m,

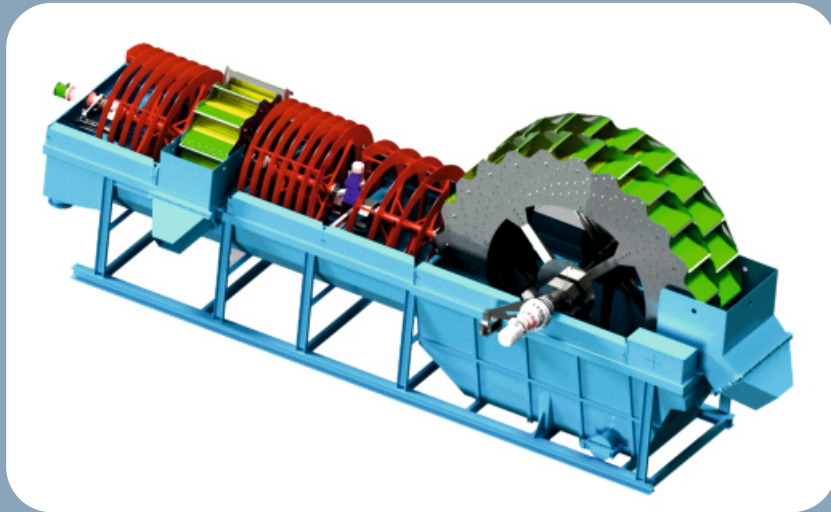
Length 1,0m ÷ 4m.

Powered by vibrational motors.



Wheel-ribbon dehydrators

Wheel-ribbon dehydrators are used to dewater gravels, grits and sands flowing from sword washer or sieve.



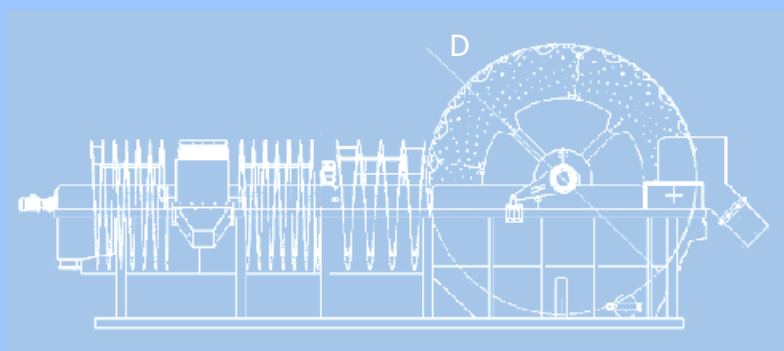
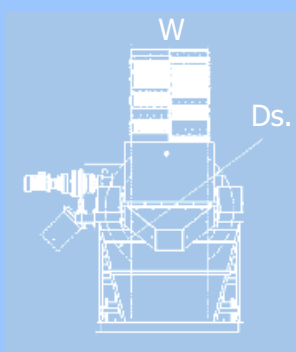
Parameters of basic one-fractional wheel-belt dehydrators

Type \ Parameter	Wheel diameter	Wheel width	Pulp load	Aggregate efficiency	Power
	mm	mm	m ³ /h	t/h	kW
OKW 290/1	2950	800÷1200	200	100	7,5+3
OKW 350/1	3560	800÷1200	320	160	11+3
OKW 460/1	4580	800÷1300	500	250	15+3



Parameters of basic two-fractioned wheel-ribbon dehydrators

Type\ Parameter	Wheel diameter [D]	Small wheel diameter [Ds]	Wheel width [W]	Pulp load	Large wheel aggregate efficiency	Small wheel aggregate efficiency	Power
	mm	mm	mm	m ³ /h	t/h	t/h	kW
OKW 290/2	2950	2160	800÷1200	220	90	42	7,5+3+1
OKW 350/2	3560	2160	800÷1200	350	150	52	11+4+1
OKW 460/2	4580	2160	1000÷1300	530	240	62	15+5,5+1



Mix of water and sand flows to bath from the large wheel side. Thick parts are picked out from bath by large wheel. The pulp flows to small wheel where smaller parts are picked. The impurity and fine dusts flows outside through drain. Belts are used to direct small, decanted fractions to the wheels.



Wheel dehydrators

We make wheel dehydrators destined to separate aggregate from pulp and to pre-dewater it. The machines are fitted to the pulp amount, concentration of aggregate in the pulp and its granulation.

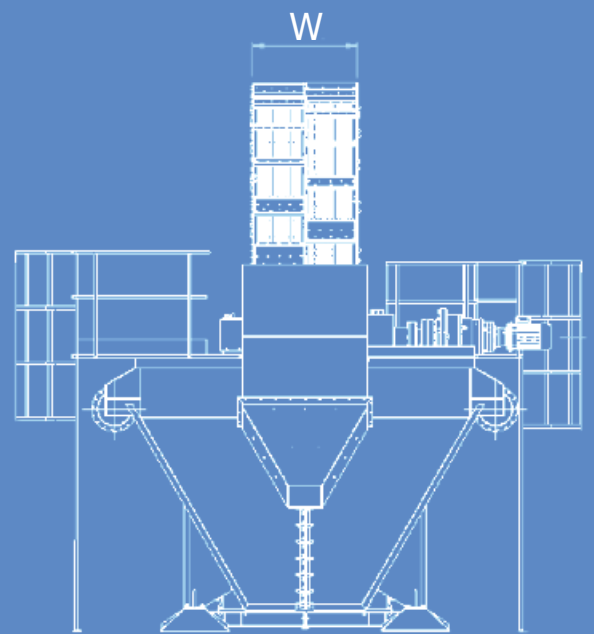
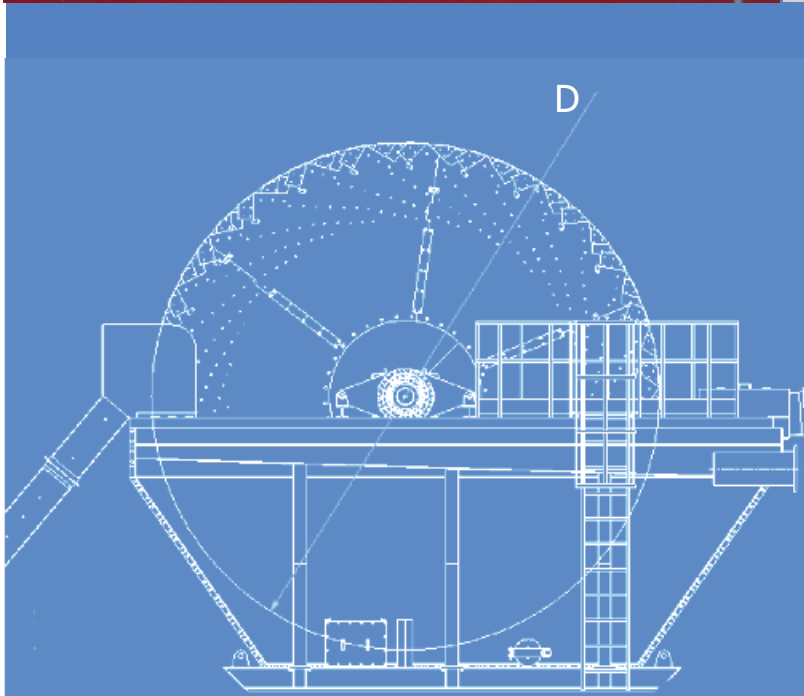


Dehydrators may work with silting up dredger or with wet processing machines in the sorting plant. Application of polyurethane mats sieves, polyester facings and high-manganese steel guarantees long time of reliable operation. Wheel dehydrators may be equipped with system that controls bucket wheel rotation speed automatically depending on material load.



Parameters of basic dehydrators type OKN

Type\ Parameter	Wheel diameter	Wheel width	Pulp load	Aggregate efficiency	Power
	mm	mm	m ³ /h	t/h	kW
OKN 300	3010	600÷800	220	80	3
OKN 350	3450	800÷1000	260	110	4
OKN 370	3720	800÷1200	350	150	5,5
OKN 420	4210	1000÷1200	500	200	7,5
OKN 460	4620	1000÷1300	750	250	11
OKN 570	5690	900÷1300	950	250	11
OKN 600	6020	900÷1400	1250	300	15
OKN 650	6530	1000÷1600	1800	450	15÷22
OKN 700	7020	1200÷2000	2500	650	22÷30



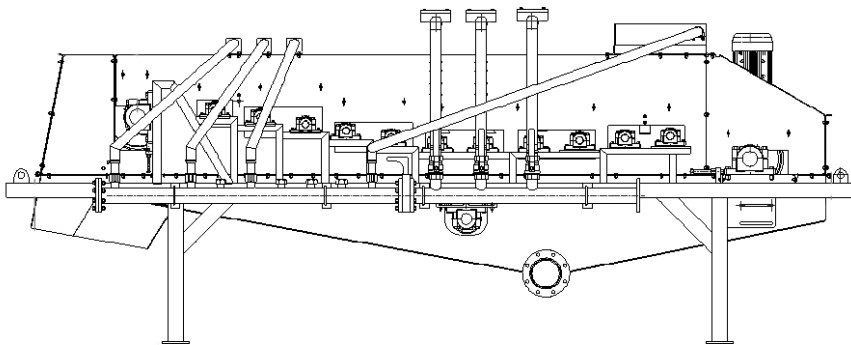
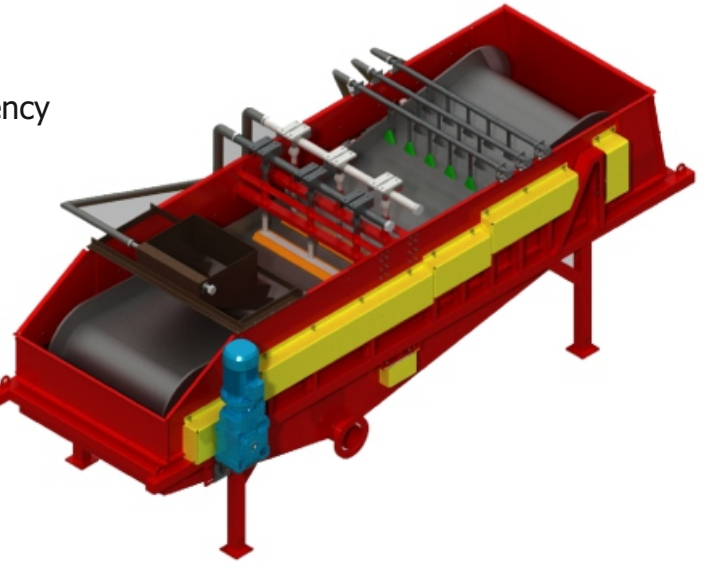
Hydromators

Our patented machine is used to remove organic impurity out from gravels. It is more efficient and effective than aquamator. Impurity removing efficiency is up to 98%.

We produce:

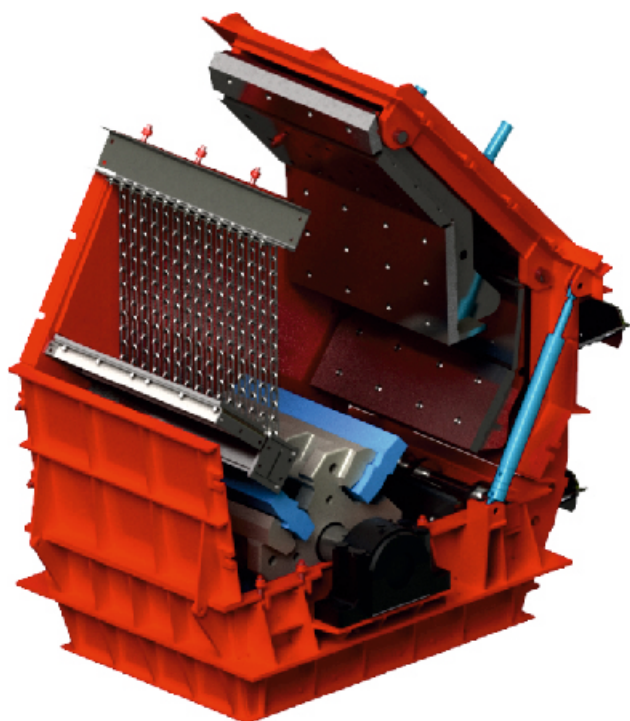
**Hydromator HM-50 with feed reaching 50t/h of aggregate.
Water demand 30 ÷ 50m³/h.**

**Hydromator HM-100 with feed reaching 100t/h of aggregate.
Water demand 50 ÷ 90m³/h.**



Impact crushers

Impact crushers produced by us are used to crush materials in a wide range of its hardness: granite, basalt, dolomite, limestone. The material is hit by bars, installed on rotor, and strikes on stationary plates. The gap between the rotor and the plates may be regulated what allows to fit the size of the fractions as needed. The bars and stationary plates are made of selected materials. They are highly abrasion resisted what results in low costs of exploitation. Crushers of our production are characterized by long and reliable work and the received material is cubicle in the whole fraction range.



Parameters of impact crusher

Type\Parameter	Slot mm	Size of grain mm	Installed power kW
KU50/60P	500x590	0 - 200	55
KU35/60W	350x590	0 - 150	75
KU60/60P	600x590	0 - 300	75
KU44/60W	440x590	0 - 200	110
KU80/120P	800x1170	0 - 500	250
KU55/120W	550x1170	0 - 600	250
KU90/132P	900x1320	0 - 700	350



Hydrocyclones

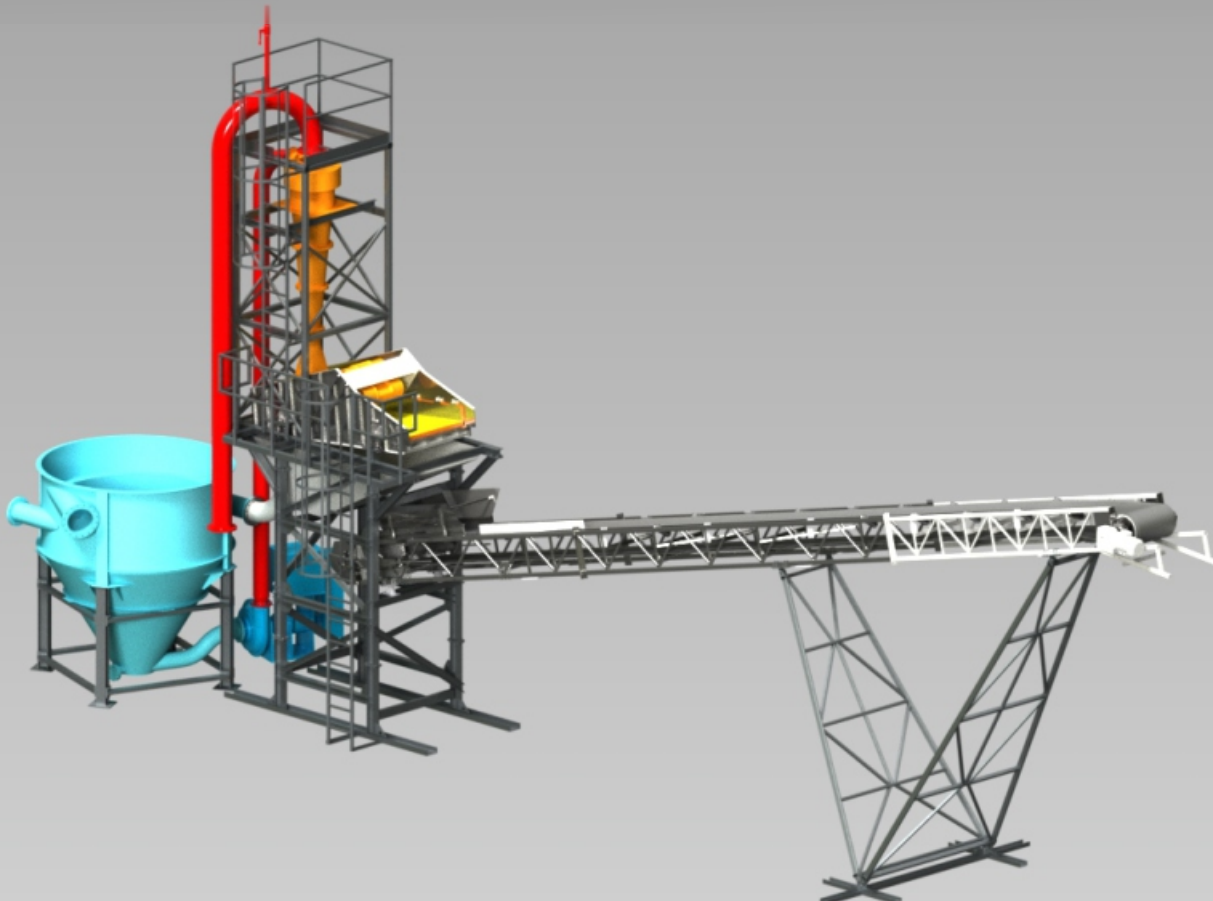
Hydrocyclones are fully adaptable machines which are used to separate solids from liquids. As a result of rotation, appears centrifugal force. It causes that solids move towards the walls of the cone. Then gravity directs them at the bottom and the clean water goes up. They are removed from hydrocyclone by two emersion flows placed on two opposite ends of it.

Grain cut-off from 0,01mm to 0,2mm.

**Pumps:
Linapump, Warman.**

**Efficiency:
to 200t/h of load,
to 900m³/h of water.**

One- or two-fractioned





Hoppers

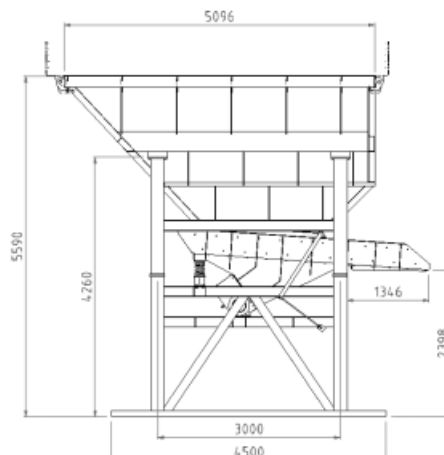
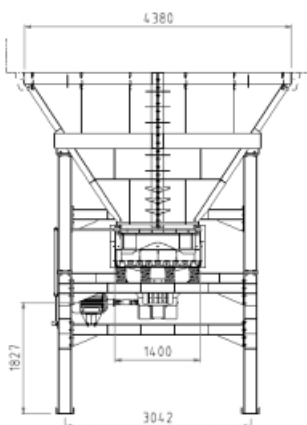
Feeder hoppers are destined to unload aggregates supplied by conveyors or loaders what allows to regular and fluent providing the processing line with materials.

The capacity of the hopper depends on the way the material is provided and on the efficiency of the processing line and may have $2 \div 45m^3$. At the bottom of the tank is built in dosing machine. It may be a vibrational dispenser, scraper conveyor or in the case of fine aggregates and low efficiency – spiral conveyor. Hopper is covered by safety grate and is equipped with slotted grid that allows to separate all aggregates which size exceeds technical capability of processing line.

Hoppers may be equipped with:

- frequency converters that allows to fluent regulation of efficiency,
- hydraulic mechanism serving to lift the safety grid.

The parameters of the dispenser hopper: capacity, kind of the feeder device and its accessories are adjusted to the kind of feeder, processing plant efficiency and other local conditions.



Complete processing lines

We may make complete and „turnkey“ aggregate processing plant.

We offer:

- individual matching of the processing technology,
- preparing the whole documentation with necessary licences,
- production and completion of machines,
- installation of necessary systems like power supply, control and monitoring,
- installation and start-up.

In the case of wet processing plants, high quality of the final product depends on appropriate selection of machines and their configuration in technological line and also on quality of the water treatment. The more aggregate is impure, the bigger is the influence of processing water on quality of the product. We offer sets of optimally selected pumps for: clean processing water, postproduction water and for pulp hydrotransport if needed. For water purification we will install earth settlers or clarifiers.





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