



OPERATION

Efficient recycling plants are the basis for the successful use of bentonite suspensions in horizontal drilling. The task of the separation technology is to separate the slurry from the solid components such as gravel, sand, clay and silt and to return the recycled bentonite to the conveying circuit. Optimum separation and dewatering technology minimizes disposal costs and increases economic efficiency.

Process step 1

The process medium is fed to the lower deck of the double-deck screening machine, where coarse separation takes place in the first step. Larger particles are conveyed to the screener discharge and thus out of the circuit. Smaller particles are collected with the slurry in an underflow sump.

Process step 2

The first pump stage (connected to the underflow sump) directs the slurry into the first cyclone stage. Here, a separation occurs into the underflow and overflow. The underflow is taken to the upper level of the screening machine for dewatering, while the overflow is directed to a distinct second chamber within the underflow sump.

Process step 3

The second pump stage (connected to the second chamber in the underflow sump) directs the slurry into the second cyclone stage. Here, a fine separation into underflow and overflow takes place. While the underflow is directed to the upper deck of the screening machine for dewatering, the overflow is channeled into a separate third chamber within the underflow sump. From this chamber, the recycled bentonite runs into the chamber / tank for recycled rinsing.

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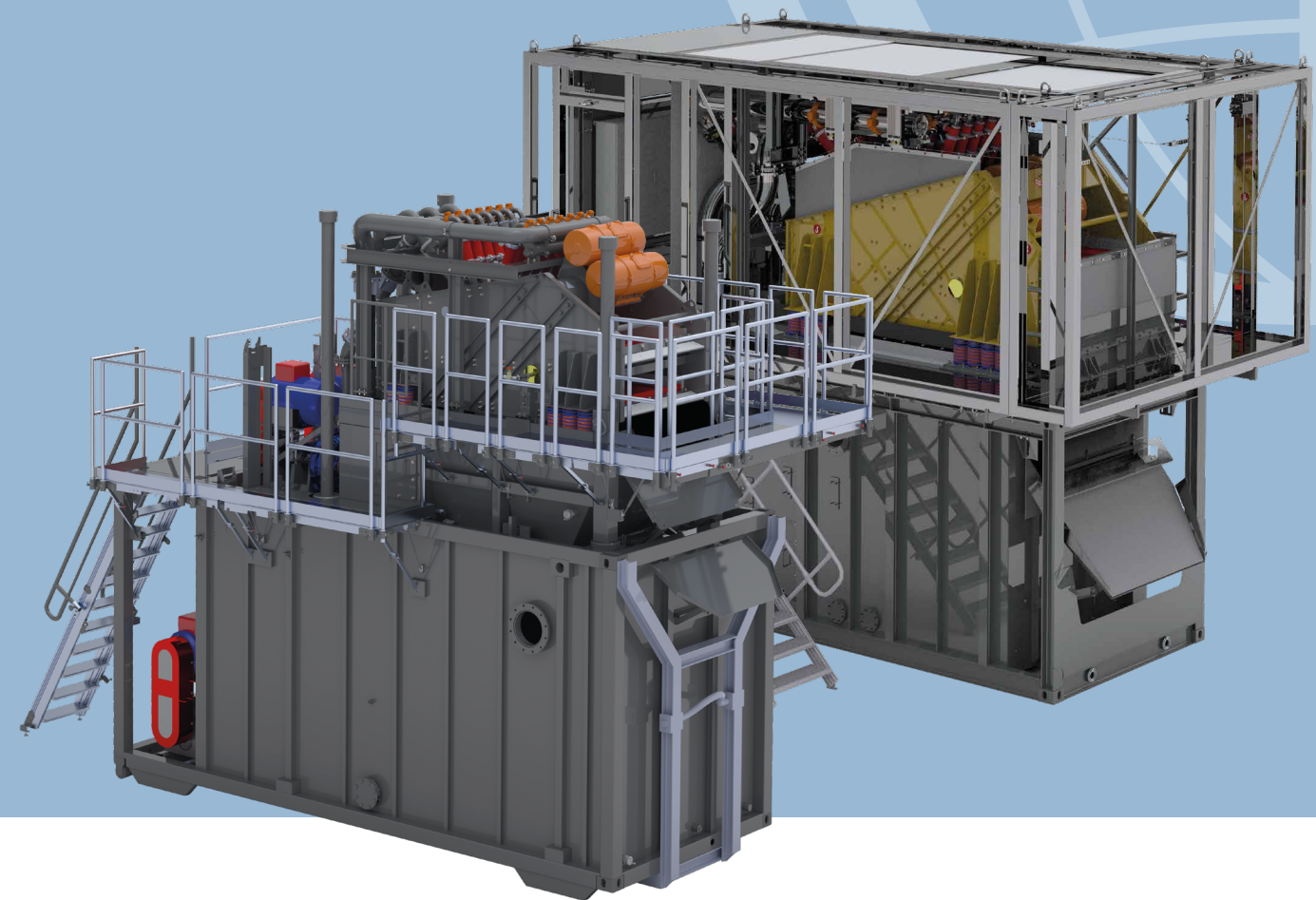
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HDD RECYCLING PLANTS



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HDD RECYCLING PLANTS

When laying pipes and cables trenchless using the HDD method, recycling the slurry is an essential part of the process. The success of mud preparation in the HDD does not only depend on the screening machines, as often assumed, but mainly on the size and number of cyclones used.

MAB recycling plants are therefore equipped with two successive cyclone stages as standard. In the second cyclone stage, even 3" cyclones are used, which guarantees a particularly good separation cut and thus an extremely low sand content in the recycled slurry.

Contrary to the common use, so called wedge wire stainless steel screens are used in MAB recycling plants. This special design ensures the use of stable, durable and wear resistant screen panels in the HDD

process with a significantly longer life. In combination with the highly-thickening MAB hydrocyclones, the recycling plants ensure excellent separating cuts despite the larger gap width on the screen linings.

Our high-performance centrifugal pumps are equipped as standard with a lining made of natural rubber, our product LINATEX®, which reduces wear. This leads to a longer service life of the pumps and lower operating costs.

SCHAUENBURG MAB recycling systems have proven to be particularly effective due to their innovative design and the use of high-quality components. With these systems, companies can save time and money while ensuring a high quality of slurry processing.

POWER

- Recycling capacity in 3 sizes: 1000l/min to 4000l/min

CONTAINERIZATION

- High mobility
- Low transport costs
- Low space requirement on construction sites
- Easy assembly and disassembly
- Excellent accessibility for operation and maintenance

QUALITY

- Long service life and low wear due to the use of high-quality wear protection materials
- High-quality materials such as Linatex® natural rubber minimises spare part costs

CYCLONES

- Two cyclone stages connected in sequence
 1. cyclone stage 6 inch (150mm)
 2. cyclone stage 3 inch (75mm)
- Optimal separation cut guarantees very low sand fraction in the recycled slurry
- Use of cyclones with vacuum controlled MAB underflow pockets allows optimization of separation performance during operation

SCREENING MACHINE

- Double deck design
- Large screening surfaces support optimum dewatering of solids and thus the separation result for the finest soils

CONTROL

- Control cabinet with SPS control
- optional: touch panel for operation, data acquisition and remote monitoring systems

COMPREHENSIVE OPTIONS

- Plants up to the capacity of 1250l/min are:
- alternatively as roll-off container plants
 - as combined recycling- and mixing plants

ACCESSORIES

- Mixing systems 1500l/min and 3000l/min
- Tank systems 20ft and 40ft
- Integrated transfer pumps with optional frequency control



TECHNICAL SPECIFICATION

Type		MAB 75 HDD SBM 6	MAB 75 HDD SBM 9	MAB 150 C-HDD Lift	MAB 300 C-HDD	MAB 300 C-HDD S
Slurry capacity	(l/min)	1.250	1.250	2.000	3.500	3.500
Solids capacity	(t/h)	30	30	50	75	75
Screen area classifying/dewatering	(m²)	0,9 / 2,7	0,9 / 2,7	3,0 / 2,6	4,8 / 4,5	4,8 / 4,5
Pump P1/Pump P2	(kW)	15 / 18,5	15 / 18,5	37 / 55	55 / 90	55 / 90
Mixing pump	(kW)	15	15	–	–	–
Transfer pump	(kW)	–	37	45	optional 55	optional 55
Number of 6 inch Ø cyclones	(Stage 1)	2	2	4	5	5
Number of 3 inch Ø cyclones	(Stage 2)	8	8	18	28	28
Mixing chamber volume	(m³)	4	3,5	–	optional	–
Storage chamber volume	(m³)	–	12,5	–	optional 25	2,4
Transfer chamber volume	(m³)	2,2	2,2	16	25	2,4
Installed power	(kW)	58	92	152	160	160
Shipping length	(mm)	6.058	9.125	6.058	6.058	6.058 / 6.058 / 6.058
Shipping width	(mm)	2.438	2.438	2.438	2.438	2.438 / 2.438 / 2.438
Shipping height	(mm)	2.591 *1	2.591	2.896	3.195	2.896 / 2.896 / 2.591
Shipping weight	(t)	10,8	20,1	18,0	15,5	23,4

*1 without hooklift frame