HERRENKNECHT SEPARATIONS

TUNNELLING CENTRIFUGES

Centrifuges are used for secondary, fines treatment of suspensions loaded with fine particles such as silt and clay. To meet the increasing requirements of modern tunneling, Herrenknecht has developed the Tunnelling Centrifuge (HKC). This ensures lower disposal costs and significantly improves the quality of the centrate medium. Different designs and capacities offer a solution for almost any project challenge. The HKC can be used in combination or as an alternative to filter presses. The compact and modular container design allows easy handling, quick assembly and disassembly, as well as minimum space requirements.

Importance of centrifuges

- Extension of slurry lifetime
- Reduction of disposal cost
- Classification (in-line) or dewatering (excess slurry)
- Performance factor for TBMs
- Separation of ultra-fine particles from the suspension for good disposal conditions
- High capacity
- Proven technology
- Applicable for various industries

Advantages and Benefits of HKC

- Container-cased design
- Modular & expandable
- Designed for tunnelling & mining
- Decanter operation for highest capacity
- Highly efficient separation
- Fast assembly & disassembly
- Low maintenance & operation cost
- Full automatic operations
- Integration into HK.CONNECTED data management system

REFINING CIRCULAR PROCESSES

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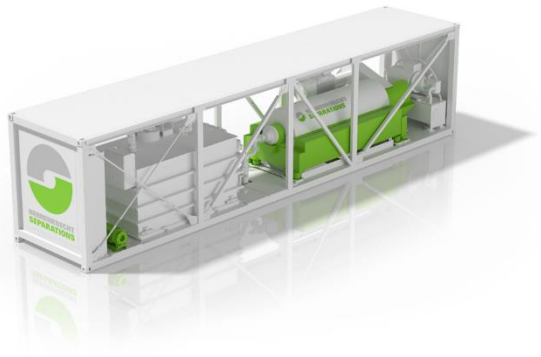
Herrenknecht Tunnelling Centrifuges
Technical specifications



- Containerized
- Low residual moisture of discharged solids
- Modular and expandable
- Continuous processing
- Suitable for powder and liquid flocculants and polymers
- High centrate water quality

Basic items

- Decanter centrifuge
- Switch cabinet with control touch panel
- Feed pump
- Flocculant station with dosing pump

Optional items

- Process centrate tank with pump
- Access stairs and walkways
- Erection frame
- Conveyor belt

Type	Feed capacity max*	Solids discharge (DS)**	Bowl diameter approx.	Installed power approx.***	Container sizes****
HKC 8	≤ 25 m³/h	≤ 8 t/h	530 mm	80 kW	20 ft.
HKC 10	≤ 35 m³/h	≤ 10 t/h	530 mm	90 kW	20 ft.
HKC 15	≤ 60 m³/h	≤ 15 t/h	650 mm	150 kW	20 / 40 ft.
HKC 18	≤ 70 m³/h	≤ 18 t/h	800 mm	200 kW	40 ft.
HKC 25	≤ 80 m³/h	≤ 27 t/h	900 mm	260 kW	30 / 40 ft.

* depending on geology, properties of the feed suspension like viscosity and density, polymers, coagulants, flocculants, etc.
** in operation with Density Regulation System (DRS) the solids discharge will increase by approx. 10-20%
*** approx. including feed pump and flocculant dosing station
**** depending on availability

Important design parameters to know

- Geology
- Density and solids content of the feed suspension
- Bentonite content in the feed suspension
- Feed volume
- Polymers, flocculants and coagulants
- Local restrictions and circumstances (like disposal restrictions, etc.)
- Installation requirements

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