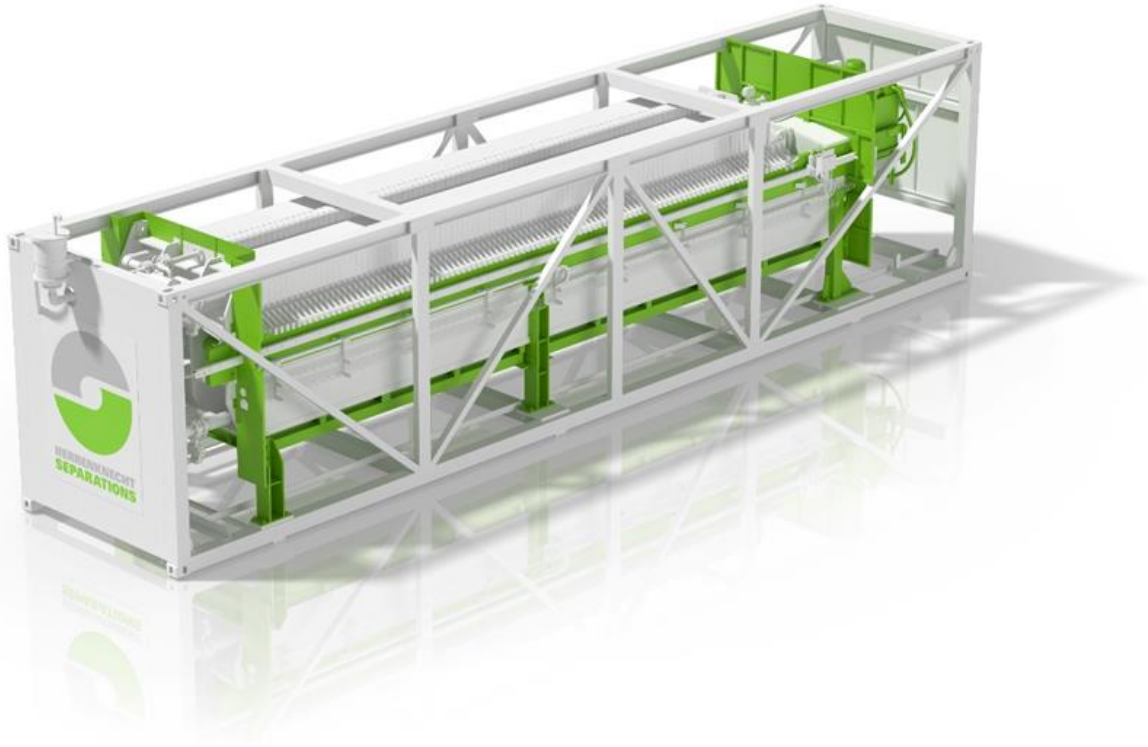


TUNNELLING FILTER PRESSES



Filter Presses are used for secondary, fines treatment in the passive circuit to separate fine solids from the discharged suspension and thus minimize disposal costs. To meet the requirements of today's tunnelling jobsites, Herrenknecht has developed a new and unique Tunnelling Filter Press (HKFP). It can be used in combination or as an alternative to Centrifuges - depending on the location, geology and requirements. Thanks to its modular and containerized design, the HKFP can be assembled and commissioned as option without extensive concrete works and requires significantly less space and handling times compared to other set-ups. This gives customers maximum efficiency and flexibility on construction sites.

Importance of filter presses

- › Extension of slurry lifetime
- › Reduction of disposal cost
- › Performance factor for TBMs
- › Separation of ultra-fine particles from the suspension for good disposal conditions
- › Low residual water content of discharged solids
- › Proven technology
- › High filtrate water quality for easy processing
- › Applicable for various industries

Advantages of HKFP

- › Container-cased design
- › Modular & expandable
- › Tunnelling application with lime and polymer
- › Membrane operation for lowest water content
- › Full set-up with all required peripherals
- › Option to avoid extensive concrete works
- › Fast assembly & disassembly
- › Low maintenance & operation cost
- › Integration into HK.CONNECTED data management system

Herrenknecht Tunnelling Filter Press

Technical specifications

- › Containerized Peripherals 40 ft.
- › Filtration area approx. 320 m²
- › Discharge capacity dry solids max.* 8-15 t/h
- › Plate size 1.5 x 1.5 m
- › Mixed Membrane plates 96 No
- › Chamber (cake) thickness 30 mm
- › Low residual moisture of discharged solids



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

Basic items

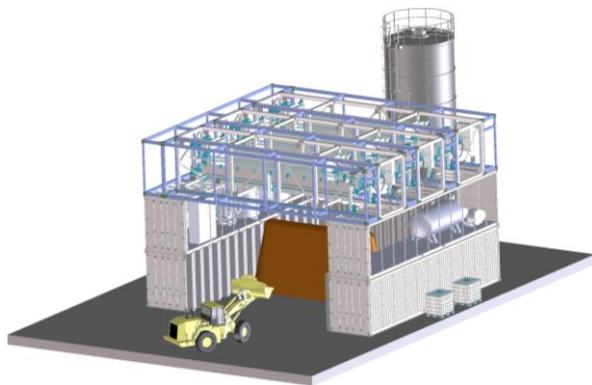
- › Filter press
- › Transfer pump
- › Feeding and filtrates treatment equipment
- › Membrane squeezing equipment
- › Switch cabinet with control touch panel
- › Safety system
- › Core blow and washing system
- › Polyamine/ Flocculant preparation with dosing pump

Optional items

- › Combinations with Centrifuges
- › Lime silo/ dosing and lime milk mixer
- › Chain conveyors for front discharge
- › Automatic cloth washing system
- › pH treatment equipment for filtrates (lime operation)

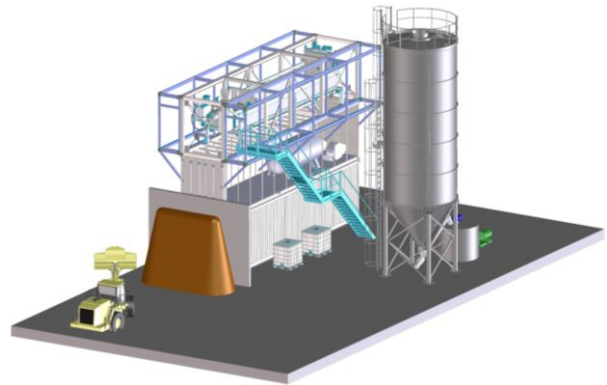
Container design with two alternative installation variants.

Version 1



- › Center discharge underneath with up to three filter presses for max. capacities

Version 2



- › Filter press connected to a scraper conveyor for small footprints and front discharge

