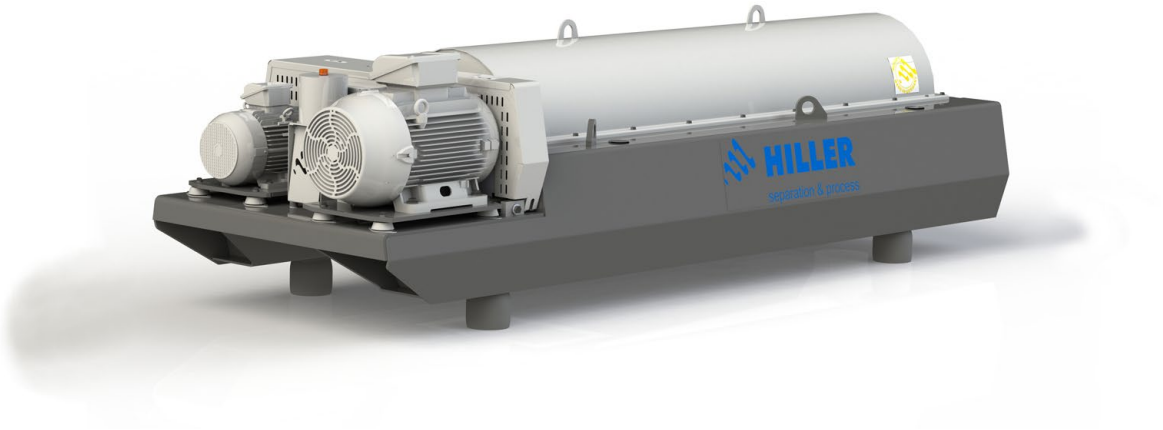
HILLER
separation & process
Member of the ferrum Group

DECANTER CENTRIFUGES
& PLANTS FOR SOLID/LIQUID SEPARATION



DECANTER VS. SCREW PRESS
A COMPETITION WITH A CLEAR WINNER

Dry substance content in the sludge: Improvement of +5% DS (absolute) with a solids capture efficiency of ≥ 99% are repeatedly achieved and proven with HILLER high performance decanter centrifuges.

Many operators of municipal wastewater treatment plants are faced with unnecessarily high sewage sludge disposal costs due to the dewatering technology applied. However, the dewatering result can almost always be optimized and the disposal costs thus be reduced. A large number of tests with our mobile plants show a considerable savings potential through the use of decanters in comparison with competitor technologies.

These practical experiences from the direct comparison tests show clear advantages for the centrifuge technology not only in the area of throughput and dewatering performance but also in the separation result of the liquid phase.
Separation efficiencies of only 90 to 95% lead to correspondingly high back-loading values for the wastewater treatment plant, which have the effect of a continuous accumulation of fine particles in the wastewater treatment plant system.

For this reason, operators decide in favour of modern decanter technology after a well-founded technology comparison on their own plant. A comparison that we can recommend and offer before making such a long-term decision.

With very manageable effort, you can quickly see the amount of operating cost savings that can be achieved, and a high degree of separation also provides procedural advantages for your entire wastewater treatment.

DIRECT COMPARISON

	HILLER separation & process Member of the ferrum Group DECANTER	SCREW PRESS
DEWATERING RESULT **(Largest economic factor influencing annual operating costs)**	✓ Up to 5% DS (absolute) better dewatering result	✗ Clear disadvantages, especially for sludge with „difficult“ dewatering properties, e.g. winter sludge
SEPARATING EFFICIENCY	✓ Stable >99% No centrate water aftertreatment required	✗ On a daily average, taking into account the regular screen cleaning cycles, only 90 - 95%, resulting in considerable backloading with fines. Necessary post-treatment of the centrate water is technically complex and an additional cost factor.
MOBILE TEST PLANTS	✓ Available in all sizes	✗ Screw presses are not available for nominal throughputs >30m³/h on a mobile basis - scale-up calculations from test settings are often the basis for later differences
OPTIMISATION FRIENDLINESS	✓ Well adjustable to changing mud characteristics	✗ Intervention possibilities are limited or usually associated with a further reduction of throughput capacity
ECONOMIC EFFICIENCY	✓ Well-founded large-scale technology comparisons confirm clear economic advantages of centrifuge technology	✗ In a direct economic comparison of technologies, the sustainably achievable operating results are not equivalent to those of a centrifuge
DEPOSITION OF SLUDGE	✓ Are avoided via automated Rinsing processes	✗ Manual cleaning required
POWER CONSUMPTION	✗ Higher power consumption (But in the overall cost comparison a subordinate factor)	✓ Lower power consumption
MAINTENANCE	✗ Higher maintenance costs	✓ Lower maintenance costs