

Tailings Management

The processing and storage of mine tailings is a key environmental issue for mining projects around the world. Utilizing its expertise in slurry dewatering technologies, Westpro offers turnkey Tailings Management Systems that allows owners to reduce or eliminate costly tailings ponds by producing stackable tailings.

These systems utilize combinations of the company's line of dewatering equipment to reduce the volume of the tailings slurry produced by the mill. An added benefit is the recovery of water for reuse in the process.

Westpro proposes three different solutions based on the project requirements.

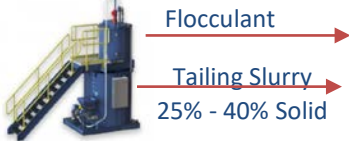
Solution 1:

This cost-efficient and convenient tailing management solution for mines able to discharge their thickened tailings into tailings impoundment areas. This approach maximizes immediate water recovery while still utilizing a pond for final water recovery and solids storage. The Westpro Machinery High Density Underflow thickener (HDU) is capable of dewatering up to 22000 t/d per unit and delivering underflow with solid percentage up to 75%.

Capacity, t/d	Model
2500	TMHD-2500
5000	TMHD-5000
7000	TMHD-7000
10000	TMHD-10000
12000	TMHD-12000
14000	TMHD-14000
16000	TMHD-16000
19000	TMHD-19000
22000	TMHD-22000

Multiple lines can be used if the capacity is greater than 22000 t/d.

Flocculant
Mixing System



Up to 75% Solid,
Pumped

Tailings Storage
Facility (TSF)

High Density Underflow Thickener

Contact Westpro and find your process solution today.

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Solution 2:

For dry stacked tailings a high capacity thickener plus a disc filter can be used up to 7000 t/d. The capacity will increase up to 22000 t/d by replacing the disc filters with filter presses.

Flocculant Mixing System



Capacity, t/d	Model
2500	TMDS-2500-DF
5000	TMDS-5000-DF
7000	TMDS-7000-DF

Capacity, t/d	Model
2500	TMDS-2500-FP
5000	TMDS-5000-FP
7000	TMDS-7000-FP
10000	TMDS-10000-FP
12000	TMDS-12000-FP
14000	TMDS-14000-FP
16000	TMDS-16000-FP
19000	TMDS-19000-FP
22000	TMDS-22000-FP

Multiple lines can be used if the capacity is greater than 22000 t/d.

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Solution 3:

Cemented paste backfill technology has become an important component of underground mining operations. It provides a safe work environment by backfilling the underground stopes and offers an effective means of mine waste disposal. Westpro Machinery's solution is a combination of a High Capacity Thickener and a Backfill plant to discharge tailings and backfill to underground stopes. Westpro Paste Backfill plant is able to dewater 7000 t/d and produce paste backfills up to 85% solids. Solution # 3 would be used with either Solution # 1 or Solution # 2 when backfill process is needed to be momentarily or permanently shut down.

Flocculant Mixing System



Backfill Production, t/d	Model
2500	TMPB-2500
5000	TMPB-5000
7000	TMPB-7000

Multiple lines can be used if the capacity is greater than 7000 t/d.

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