



Doppstadt

PIT & QUARRY MINE DUMP TREATMENT

APPLICATIONS





PIT & QUARRY

Minerals are a finite resource!

Winning industrial minerals and rocks from an extraction site is a process with foreseeable limitations, as is the lifespan of the production plants. In the past, however, rubble and winning areas interspersed with mud and clay have been stockpiled inside the quarry. Those mine pile can measure up to several hundreds of thousands of tons in weight and contain an average of 50-70% of raw material (natural stone).

The winning or processing of waste dumps can become a rather cumbersome

task using available technology. For many years a material blend of poor quality (earth, mud, clay, stone) has been mixed with the pile, adding to the very high level of humidity within.

Depending on time of year and material quality the available screening technology is being stretched to its limits. This is where the counter-rotating spiral shaft technology by Doppstadt comes into play.

Thanks to the „active screening gap“ the level of humidity inside the material is

no longer a factor, since even the most cohesive soil is virtually shattered by the stones contained, peeled off by the spiral and transported to the fine fraction.

As a result, stockpile volumes drop, raw materials production continues and extends the lifespan of winning areas and quarries.

Overall, this is a vast improvement in cost efficiency for existing separation processes in the quarry.

THIS IS DOPPSTADT

Doppstadt, a family-run company based in Velbert (near Düsseldorf), was founded in 1965. Initially a producer of agricultural machines, Doppstadt has become a leading global supplier of solutions and services in all areas of recycling/environmental technology and resource recovery.

‘Best Solutions. Smart Recycling.’ True to this motto, we combine proven processes technology into individual solutions that are hallmarked by innovative process flows, maximum operational efficiency and cost-effectiveness.

In the area of water-based separation and wet recycling systems in particu-

lar, we provide our customers with flexible, tailor-made solutions for all requirements. With sites in Velbert, Wülfrath, Calbe and Wilsdruff, we serve customers in more than 40 countries through our own dealership network and offer a wide range of services to support the unique Doppstadt product portfolio.

At a glance:

- efficient extraction of high-quality raw materials from cohesive mixed fractions contained in existing waste dumps
- life span extension of approved quarries by way of waste dump utilization/processing
- substantial volume reduction in waste dumps



NEW SEPARATION METHOD

Spiral shaft technology for heavy-duty operation

The spiral shaft separator Doppstadt SWS 3000 **keeps going when other screening technology falters** – while processing extremely clayey, cohesive, sticky and humid input materials. The system is suitable for use in the summer months as well as during and after longer periods of rainfall – which makes the SWS 3000 an **almost all-season screening solution**.

- The **tub-shaped screening deck** is made of two counter-rotating screening units which disperse the input material.
- The material enters the curved deck areas and is being kept in motion over a longer period. This is how the machine separates the contaminants from the useful fraction **without clogging**.
- The **material mix** is being dropped onto the spiral shaft deck, clogging the screening gaps thanks due to its cohesiveness. The shaft movements, however, cause the gaps to **be continuously excoriated and thus cleaned**.
- This makes the SWS 3000 a **self-cleaning system** whose active screening gaps ensure a **constantly high screening performance**.
- By changing the inclination of the screening decks the operator may adjust the quality and quantity of the fractions with regard to material consistence and ambience conditions.





BENEFITS OF THE DOPPSTADT SWS 3000

- Unrivaled separation method for heavy-duty operation
- Continues where other screening technology falters
- Processes mixed material fractions regardless of humidity and cohesiveness
- Self-cleaning system based on active screening gaps
- Very efficient and resource-conserving separation process
- All-the-year applicability

Doppstadt

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