



The Delkor Ultrasep concept permits a very high allowable rise rate in the thickener and thus reduces the required thickening area significantly, affording a far more cost-effective thickening solution. The Ultrasep thickener has no moving parts and thus the need for maintenance is virtually eliminated.

It is used in the metallurgical and mineral processing industry for mill circuit thickening, counter current decantation, backfill and carbon-fines recovery, dewatering and water recovery and slag treatment.

### Benefits

- Process adaptability
- Optimised underflow density
- Optimised overflow clarity
- A tolerance to process fluctuations
- Low flocculant consumption
- Minimal environmental impact
- Automated operation
- Quick start-up and stabilisation
- Small footprint minimises plant size
- Bolted construction reduces delivery time
- Reduced capital outlay
- Reduced operating cost
- Low maintenance cost
- Short delivery and installation time
- Retrofit potential
- Mobility
- Zero spares requirement

The Ultrasep is manufactured to international quality standards and the design permits short delivery and installation times. Its capital cost can be as low as 50% of the cost of a conventional thickener performing the same duty.

### General operation of Ultrasep

The Ultrasep functions on three principles:

- Diluted slurries, once flocculated, settle more readily than undiluted slurries
- Reduction of velocity of flocculated slurry resulting in settlement of solids out of suspension
- Slurry settling on inclined surfaces slides down the surface and consolidate, realising water

### Control philosophy

The control of Ultrasep is governed by the following factors:

- Underflow on density basis
- Flocculent addition by settlement optimiser
- Level control
- Monitoring control

### Sizing of Ultrasep

The sizing can be conducted in different methods such as:

- Laboratory test work
- Manual calculation based on client's data sheet
- Pilot plant trials



# ULTRASEP THICKENERS APPLICATIONS



[www.delkorglobal.com](http://www.delkorglobal.com)

Sedimentation

Conventional, High Rate, High Density, Ultrasep and Paste Thickeners treat a variety of materials in a number of different industries.

#### Mineral Processing

- Material
  - Gold
  - Silver
  - Platinum Group
  - Diamond
  - Base Metals
  - Copper
  - Iron
  - Coal
  - Nickel
  - Mineral Sands
  - Uranium
  - Aluminium/Bauxite
- Application
  - Grinding
  - Leach
  - Concentrate
  - Tailings
  - Counter Current Decantation (CCD)
  - Paste Backfill
  - Clarification
  - HDS (High Density Slurry)

#### Water Treatment and Waste Water

- Sewage Treatment
- De-salination
- Water purification

#### Chemical / Industrial

- Refineries
- Smelters
- Cement Industry

# DELKOR

IT PAYS TO TALK TO A SPECIALIST



For further information, contact your regional Delkor office.

[americas@delkorglobal.com](mailto:americas@delkorglobal.com)  
[europa.cis@delkorglobal.com](mailto:europa.cis@delkorglobal.com)  
[centralasia.nthafrika@delkorglobal.com](mailto:centralasia.nthafrika@delkorglobal.com)  
[subsahara.africa@delkorglobal.com](mailto:subsahara.africa@delkorglobal.com)  
[asia.pacific@delkorglobal.com](mailto:asia.pacific@delkorglobal.com)

- High Rate Thickeners
- High Density Thickeners
- Paste Thickeners
- **Ultrasep Thickeners**
- Conventional Thickeners