Lamella Clarifiers

• Reduced Capital Cost / Smaller Footprint
• Simple Operation and Maintenance
• No Moving Parts on Settling Clarifier
• Improved Turbidity Removal
• Very Short Residence Times
• Reduced Sucrose Degradation
Unique features of the Bosch Projects Lamella Clarifier

Settling Lamella Clarifiers

• Only 30% of conventional juice clarifier size and footprint.
• Reduced juice retention time to 10-15 minutes (compared with 20-45 minutes for SRT & 60-90 minutes for multi-tray clarifiers).
• Improved juice turbidity removal.
• Reduced sucrose degradation.
• Operates without moving parts / mud scraper.

Flotation Lamella Clarifiers

• Especially effective for syrup and refinery phosphatation clarification.
• Reduce liquor retention time to 5-10 minutes (compared with 20-45 minutes in conventional clarifiers).
• 4 to 5 times smaller than conventional clarifier.

Inclined Plate Settling

A lamella clarifier uses a series of inclined plates to create a very large effective settling area. This approach leads to laminar flow between the inclined lamella plates and drastically reduces the settling distances, which means solids particles are rapidly and efficiently separated. While lamella clarifiers are a new application in sugar processing, they are well-established in water treatment where they have been shown to improve capacity by a factor of 4 to 10. A lamella clarifier eliminates the prospect of recirculation and with it short circuiting and re-entrainment, and is therefore, inherently capable of substantially improved performance. The image below demonstrates the physics behind inclined plate settling.