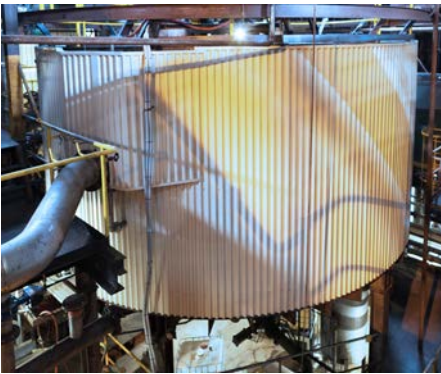




Global experts
in sugar milling and
refining technology

SRI High Performance Juice Clarifiers



SUGAR RESEARCH INSTITUTE'S

High Performance Juice Clarifier design minimises sucrose degradation and the resources used to produce clear juice.

Designed by SRI's world-renowned experts, the *SRI High Performance Juice Clarifier* achieves low juice turbidity, high mud sink rate per unit volume and low flocculant usage to produce clear juice in the cane juice clarification process.

SRI's improved clarifier design efficiently separates mud from the juice via an upgraded internal feed system that reduce peak circulation velocities in the separation zones of the clarifier.

With diameters from 5 to 14 metres, the *SRI High Performance Juice Clarifier* design effectively processes juice from 2,000 to 26,000 TCD.

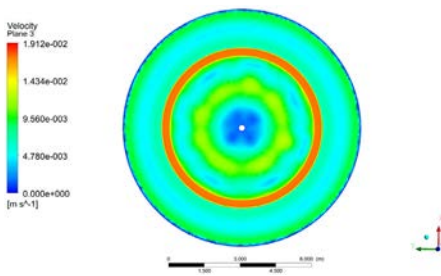


Figure 1: Velocity profile in plan view of clarifier at the separation zone (before upgrade)

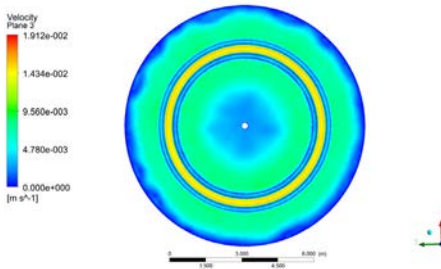


Figure 2: Velocity profile in plan view of clarifier at the separation zone (after upgrade)

SRI High Performance Juice Clarifier Design Packages

SRI High Performance Juice Clarifier design packages include (as required):

- Audit of existing juice clarification systems
- Design specifications for the:
 - Clarifier body, flash tank and internals
 - Flocculant preparation plant and addition system
 - Lime saccharate preparation plant
- Upgrade of NG or SRT designs to the SRI HP Juice Clarifier
- Functional specification including control scheme for the juice circuit
- Operations manual
- Fabrication inspection
- Commissioning and operator training

SRI's High Performance Juice Clarifier reduces juice short-circuiting, minimises mud up-flow and carryover, and limits inversion through shorter retention times. The core of the 'improved' clarifier design is the improved separation of the juice and mud at the separation zone which increases throughput for a given clarifier size while maintaining very low clear juice turbidity.

Benefits of SRI HP Juice Clarifier

The SRI High Performance Juice Clarifier design has been developed using computational fluid dynamics (CFD) modelling and hydrodynamic engineering methodologies to deliver key improvements on the existing SRI New Generation (NG) and Short Retention Time (SRT) Juice Clarifier performance.

Upgraded feed system

The upgraded feed system produces a smoother transition of high juice flow into the clarifier, substantially lowers peak circulation velocities and facilitates separation of the mud flocs from the clear juice.

Reduced sucrose degradation

Because juice spends less time at the elevated temperatures required for effective clarification, losses from sucrose inversion are minimised. Downstream benefits include more efficient crystallisation and improved recovery.

Low resource input use

The design of the SRI High Performance Juice Clarifier improves mud floc separation from juice and so requires less flocculant to achieve clear, clarified juice with low turbidity.

SALES

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