



WESTERN STATES

where *innovation* happens everyday™



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THE WESTERN STATES ADVANTAGE

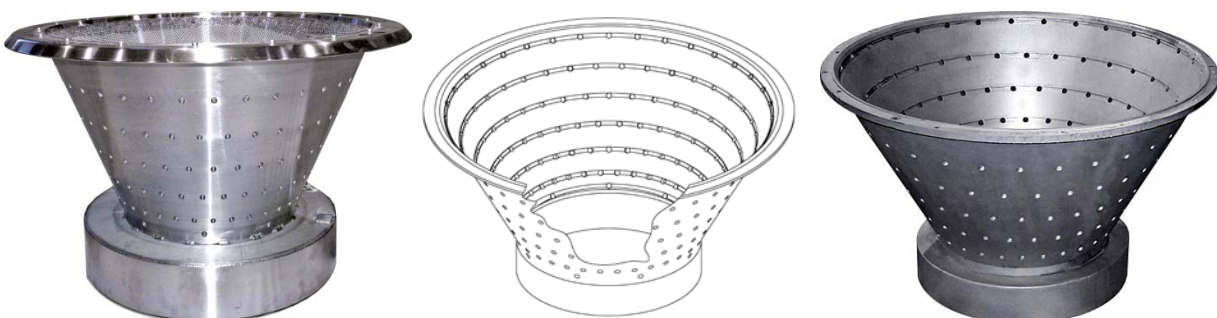
TITAN-Series Continuous Centrifugals

FASTER PURGING

Faster purging is achieved in the Western States TITAN-Series continuous centrifugal in 4 ways:

1. Advanced Basket Design

The Western States TITAN-Series continuous centrifugal utilizes a thick, one-piece, centrifugally-cast, stainless steel basket; versus the fabricated (welded) construction offered by the competition. The holes in the horizontal plane of the Western States TITAN-Series continuous centrifugal basket are connected by deep channels. These deep channels enable the molasses to better evacuate the basket.





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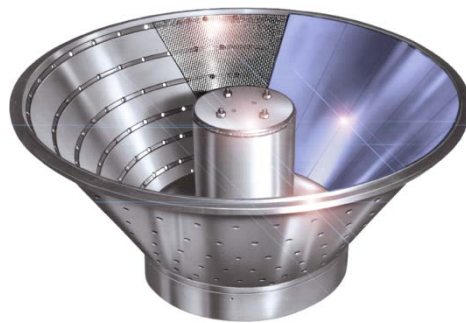


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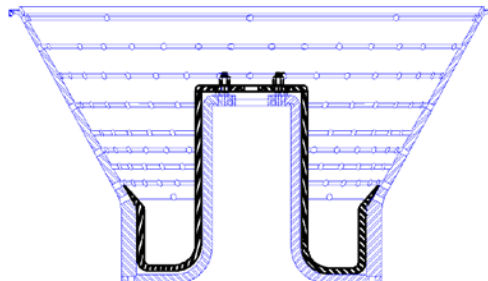
2. Less Obstructions

The Western States TITAN-Series continuous centrifugal utilizes two screens – the heavy, woven wire backing screen and the working (top) screen. Some of the competitive machines utilize three screens – the heavy, woven wire backing screen, an intermediate screen, and the working screen. This third screen provides an additional restriction for the exiting molasses (particularly if it is at all blinded).



3. Superior Screen Clamping

The Western States screen clamping system allows for the massecuite to accelerate to basket speed before moving on to the screen. Additionally, the transition from the screen clamp to the screen has a very low angle of attack. The combination of these two features result in reduced screen wear at the transition point thereby increasing overall screen life and minimizing crystal breakage.



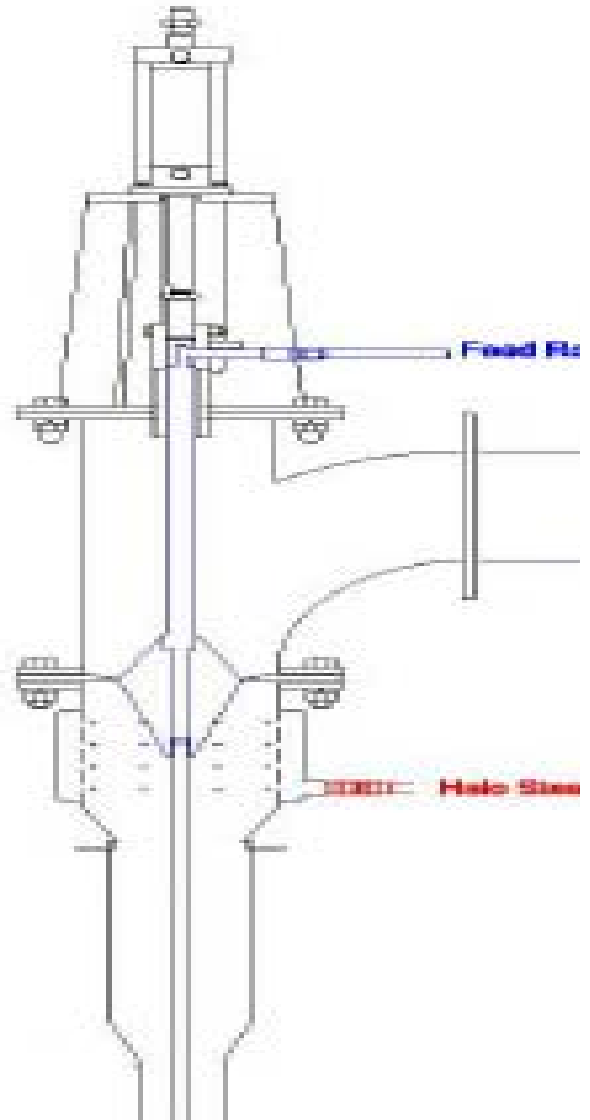


4. Superior Massecuite Conditioning

The feed system on the TITAN-Series continuous centrifugal utilizes a guide rod to pre-condition the massecuite (see diagram below). The guide rod directs halo steam and process water in to the massecuite and provides superior mixing of the incoming massecuite. Not only is water delivered to the incoming massecuite from an “external” spray, but also down this guide rod “internally”. This lowers the viscosity of the massecuite and enables faster purging. *Please note: our OPTIONAL needle valve feed system is depicted below. Our standard feed system utilizes a butterfly valve to regulate the flow of massecuite.*

ADDITIONAL CONSIDERATIONS

Multi-point Internal Suspension System: The basket and bearing housing are supported internally, separate from the curb, at eight points on the TITAN-1100 and ten points on the TITAN-1300 continuous centrifugal. On some competitive machines, the entire assembly, curb and all, is supported externally. Thus, vibrations are being transmitted to the entire centrifuge and the support structure.





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Minimal Purity Rise: When properly loaded, The TITAN-Series continuous centrifugal has been shown to limit molasses loss to 2%, or less.

Less Crystal Breakage: The TITAN-Series continuous centrifugal employs a side feed system as standard. This arrangement gently deposits the massecuite at the base of the basket wall, rather than in the center of the basket where the crystals are “slung” to the outside walls increasing the likelihood of crystal fracture.

Reduced Working Screen Wear: The center feed on competitive machines causes additional wear on the working screen due to crystals impinging on the screen with higher velocity. This necessitates the use of an intermediate screen (to protect the working screen) which retards flow as discussed previously. Working screen wear is reduced with the side feed arrangement.

Simple & Quick Screen Changes: The TITAN-Series continuous centrifugal screen clamp bolts are located on top of the bearing housing for easy access. The side feed does not need to be removed when changing the working screens. On many competitive designs, the bottom edge of the feed cone is directly over the feed clamp bolts, requiring the center feed be removed to change the working screens. It reportedly takes up to 4 times as long to change screens on center feed machines.

Minimal Screen Segments: The TITAN-Series continuous centrifugal has three working screen segments on all models. Some competitive designs have up to five screen segments.



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Emergency 24-hour Service & Support Hotline: The Western States Machine Company has a team of fully trained service personnel with an Emergency 24-hour Parts and Service Hotline in Fairfield, OH, USA.

Local Representation: The Western States Machine Company utilizes local representatives located within minutes of your factory.

Best of all, the TITAN-Series continuous centrifugal is:

Proudly Made In America!

