Celleco Tripac 90™

The Tripac 90 hydrocyclone is designed mainly for cleaning of bleached and semi-bleached kraft pulp, special pulps, removal of mini-shives and for use in waste paper deinking systems. It is available in canister and bank assemblies. The canister assembly is primarily intended for primary stages in cleaner plants and the bank assembly for secondary stages and for small flow rates.

The Tripac 90 is a small-diameter cleaner that offers the advantages of a large diameter cleaner. The unique flow patterns created in the Tripac 90 develop exceptionally high g-forces for highly efficient separation of small dirt and shive particles.

Key benefits

- **Compact design**
- **High cleaning efficiency**
- **High runnability**
- **Low pressure drop**
- **A variety of cones available**

Three-in-one hydrocyclone means less units to install

The Tripac 90 features three 60-mm-diameter (2.5 inch) hydrocyclones housed in one cleaner body. The cyclone cassette combines the runnability, high capacity and low reject rates of a large cleaner with the cleaning efficiency of a small cleaner.

Efficient removal of small particles

A small-diameter hydrocyclone develops higher g-forces and a greater cleaning efficiency at a constant power input. The high centrifugal force that develops in the separation zone in a Tripac 90 ensures an exceptionally high separation of contaminants from pulp. Due to the small cone angle, a high separation of mini-shives can be achieved.

Large reject outlet prevents clogging

The Tripac 90 is a unique solution to the clogging problems encountered with a small-diameter hydrocyclone and a small reject outlet. The three hydrocyclones in the Tripac 90 cleaner are equipped with a common large-diameter reject outlet that determines the individual cyclone reject flow rates. This virtually eliminates the risk of clogging. The design of the reject outlet is patented.

Fig. 1 Tripac 90 canister assembly

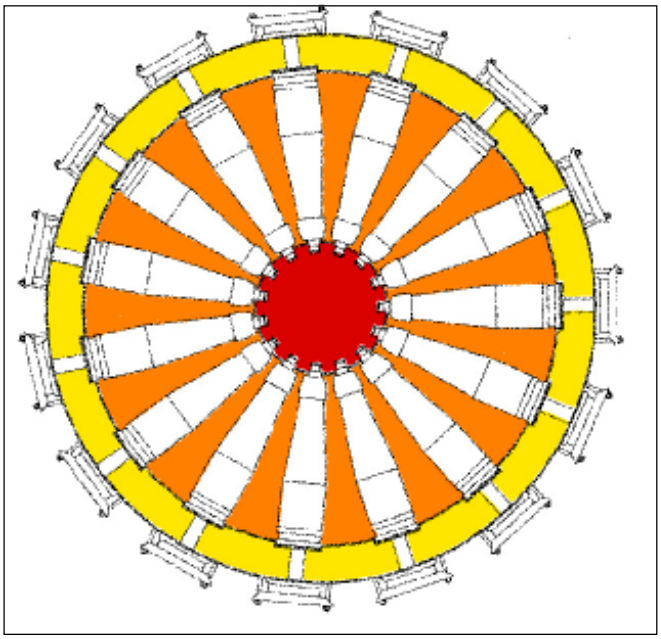

Fig. 2 The cleaner units are stacked radially

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System stability and fewer units

The Tripac 90 cleaner is installed in a pressurized system with internal counter-pressure in the accept and reject channels. All cleaners operate with the same parameters and with the designated effect. This ensures the highest possible consistent performance of each individual cleaner.

With conventional small-capacity cleaners it has been difficult to reduce the internal counter-pressure to an acceptable level, particularly for reject flow, without experiencing clogging problems.

The common reject outlet of the Tripac 90 cleaner eliminates problems by establishing individual equalized pressure conditions.

As a result of the uniform pressure conditions, low reject rate and equal individual running, fewer Tripac 90 cleaners are required in the fiber recovery stages (2nd and 3rd). This reduces the total cleaning plant investment.

Space-saving design

The canister model is a space-saving unit for large flows. 35 to 336 cleaner bodies can be stacked in a single unit (8,900 to 100,800 l/m; 2,300 to 26,000 USgpm).

For the secondary stages, banks are normally chosen when flow rates are low and a canister would not be justified.

Laser technology has improved the design of the steel construction through ensuring that the inner surfaces are smooth and free from projections, for optimum system cleanliness.

Technical specifications

Pressure drop		Feed capacity	
kPa	psi	l/min	USgpm
100	14	245	65
120	17	270	71

Min. accept counter-pressure: 50 kPa (7 psi)
Max. permissible feed pressure, canister: 240 kPa (34 psi)*
Max. permissible feed pressure, bank: 450 kPa (65 psi)

(Higher pressure available on request. Please contact GL&V)*

Material

Structure: All wetted parts are made of stainless steel
Cleaner unit: High grade plastics

Patents

The design is protected by patents and patent pendings.

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