

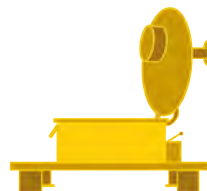
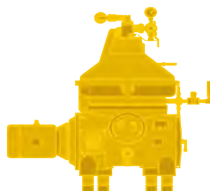
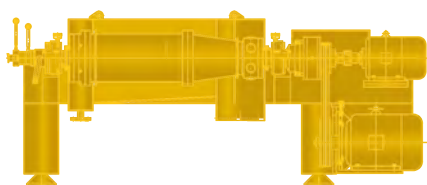
## TUBULAR SEPARATOR SERIES



C A T A L O G U E



## TUBULAR SEPARATOR



### **CHINA**

No.13093-06-02 Victory Community,  
Baita District Liaoyang

TEL: +86 186-4192-8887



### **PHILIPPINES**

Suite 310 Intramuros Corporate Plaza,  
Recoletos St., Intramuros, Manila

TEL(Danny): +63 969-3230-115



### **KOREA**

5-4, Songnim-Ro 48beon-Gil  
Yuseong-Gu, Daejeon

TEL: +82 54-933-6286



### **AMERICA**

6900 46th Street Kenosha,  
WI 53144

TEL: +1-262-656-7680



[sales@crown-machinery.com](mailto:sales@crown-machinery.com)



[www.crown-machinery.com](http://www.crown-machinery.com)



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China **+86 186-4192-8887**  
 Philippines **+63 969-3230-115**  
 USA **+1 262-656-7680**  
 Korea **+82 42-825-4260**

## Introduction

### Tubular Separator

**Tubular separator** is suitable for the separation of two non-miscible liquids of different densities. An excellent replacement for many traditional filter and membrane applications due to their high efficiency and small footprint.

The Crown Machinery's TC & TS Series Tubular Separators are engaged to separate low percentages (<2%) of suspended solids which are between 1 and 0.1 microns in size. Tubular Separator operates at high speeds to generate up to 13400~19000 gravities of centrifugal force (separation factor). As the fluid travels up through the bowl, centrifugal force cause suspended solids to migrate to the bowl wall where they are retained and manually collected. The clarified fluid is discharged through the top center of the tube.



## Application of Tubular Separator

- Harvesting Biomass
- Clarify Process Liquid
- Separating liquid Products Animal Blood Processing
- Bio remediation
- Precessing of Granular, Crystalline & Fibrous Suspensions
- Separation of filterable & Non-filterable sludge

## Characteristic of Tubular Separator

- Rapid separation
- Consistent Performance
- Range of models facilitate scale-up
- Simple to set up, use and clean for minimal down-time
- Small footprint save space Enclosed
- Model available for ambient gas control
- Powerful 3-phase electric motor or customize by various power
- Permanently-lubricated Oversized head bearings maintain long ser-vice life

# Tubular Separator Series

## Series

## TC/TS

Parm/Model	45	75	105	125	150
<b>Bowl Dia.</b> (mm)	45	75	105	125	150
<b>Bowl Volume</b> (L)	0.4	2.2	6	8	10
<b>Bowl Speed</b> (r/rim)	30000	19000	16300	15000	13400
<b>Motor power</b> (kW)	0.55	1.5	2.2	3	3
<b>Weight</b> (kg)	90	300	500	530	550
<b>Dimension L*W*H</b> (mm)	480*460*800	450*760*1120	600*900*1600	600*900*1600	600*900*1600

\* TS: Three Phase TC : Two Phase

## Functional category

### SEPARATION TYPE

The Crown Machinery's TS series tubular separator can be configured as a three phase solutions (Liquid-Liquid-Solid). If any solids are present, they will collect on the wall of the centrifuge tube while the two separated liquids are discharged at the top of the tube by the dedicated outlets.

### CLARIFICATION TYPE

The Crown Machinery's TC series as a clarifying type (Liquid-Solid) of tubular separator is designed to separate low percentages of solids which are suspended in a liquid. The high centrifugal force generated causes the solids to migrate to the wall of the centrifuge tube where they are retained. The clarified liquid is discharged at the top of the tube.

### LABORATORY TYPE

Laboratory separator is mainly used for the Laboratory or small scale industry application, by the adjustable high rotating speed from 8000-30000 rpm, it can almost used for every liquid separation for testing. It can achieve two functions with only one separator by exchanging the bowl.



Separation type



Clarification type



Laboratory type

## Functional category

### FRONT OPEN TYPE

Front open type of tubular separator allow operator disassemble and assemble the bowl conveniently, basis on the special Front door design. safety inspection of the locker and connect with door, ensure the sealing of machine.



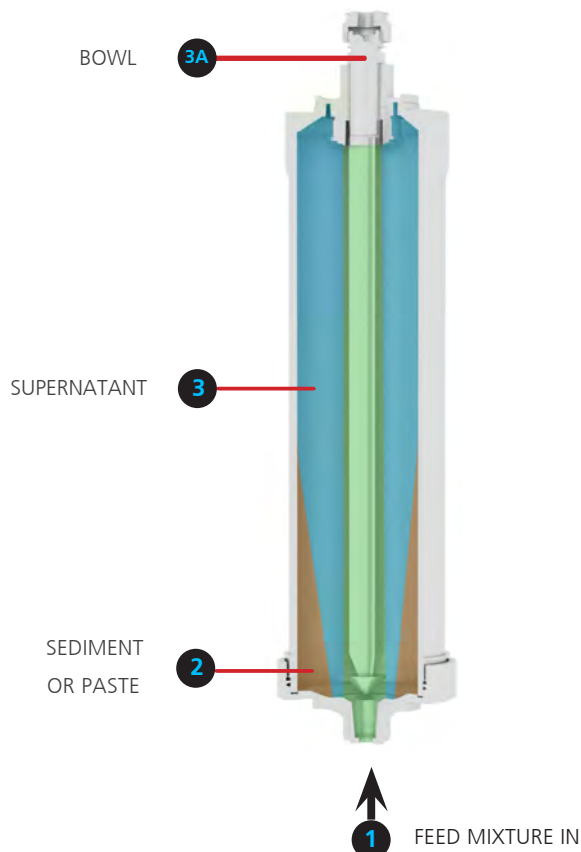
### NORMAL TYPE

Normal type of tubular separator is fit for the normal operator without easily disassembling requirements.

## Working principle ----- Bowl

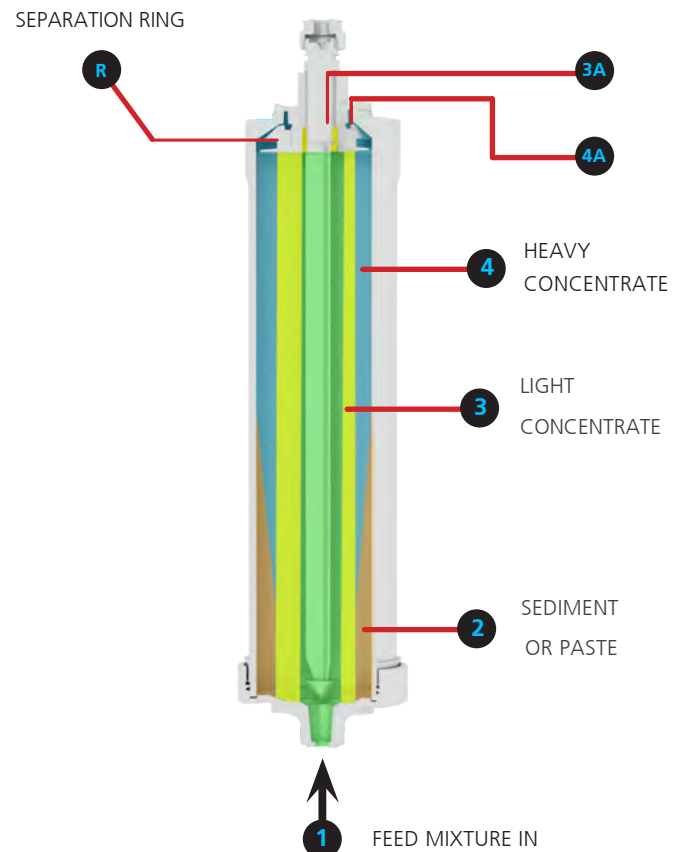
### Bowl for Clarification type

The feed mixture enters at the bottom of the bowl (1). Biomass or other sediment collects on the wall of the bowl, forming a cake or paste (2). Clear supernatant (3) exits from the top of the bowl (3A).



### Bowl for Separating Bowl

The feed mixture enters the bottom of the bowl (1) and sediment collects on the walls of the bowl (2). Liquids separate rapidly by specific gravity, and separating ting (R) directs liquids into light and heavy streams (3) and (4) which exit bowl in separate trays at (3A) and (4A).





# Track Records

## Tubular Separator

