The Triveni Traveling Bride Sludge Collector is used for the removal of settled solids and/or floating material from Clarifiers in Water and Waste Treatment applications.

The Traveling Bridge Sludge Collectors are ideally suited for use in a corrosive environment, where sludges are relatively stable and where nominal volumes of sludge are expected.

The mechanism consists essentially of a deep sludge scraper blade carried by a bridge which spans the width of the tank. The bridge is mounted on 4 flanged wheels which ride on rails and travel the length of the basin. Where floatable solids are present, a skimmer blade can also be furnished.

For applications where only oils or other floatables are to be removed, a skimmer blade without a bottom sludge scraper can be furnished. If required, scum withdrawal can also be provided along with these units.

The design flexibility of the Triveni Traveling Bridge enables it to be used in many applications ranging from API Separators to Mill Scale collectors to Primary treatment in sewage plants to Clarifications in water treatment plants.

Triveni Traveling Bridge Collectors are designed to minimize maintenance costs. All components of the Triveni Traveling Bridge are selected for the worst possible environmental and operating conditions under which the equipment will operate.

Servicing the equipment is easily done from the bridge. The drive machinery is located on the walkway and the lifting mechanisms for scraper and/or skimmer are mounted on the bridge and easily serviced from the walkway.

Bearings, mounted within the wheel, are factory assembled ensuring positive alignment and optimum bearing life. All parts requiring lubrications are located above the water and are provided with requisite lubrication lines for servicing from the walkway.

The flexible design concept of these units also extends to the drive arrangements which include a line shaft with a motor and reducer driving the shaft. The line shaft extends to both ends of the bridge where it drives the wheels through a chain drive with sprockets mounted directly to the wheels permitting the use of low maintenance internal bearings in the wheels.

Features

- A Positive Sludge Removal and Surface Skimming

Low Maintenance Cost

Drives to suit any requirement
For **Standard Duty** applications for tank width upto 12 M, the mechanism is generally provided with Traveling Bridge in standard beam construction.

- Pair of wheels in a carriage arrangement mounted at each end of the bridge
- Scraping / Skimming blades supported from underside of the bridge
- All driving / operating machinery mounted on top of the bridge for easy access
- Blade positioning can be adjusted through a locking mechanism
- Design enables the blades to be raised out of the water for servicing

For **Heavy Duty** applications for tank width above 12 M, the mechanism is provided with Traveling Bridge in truss construction.

- Cross bracings located under the walkway and top chord of the truss used as handrail.
- Optional Rack & Pinion drive available for positive non-slip traction
- A Pinion mounted on the driving wheel on the side of the bridge and engages on the rack running alongside the rail.

**Power Supply**

Various methods of power supply can be used with any of the bridge designs. Festooning system using a cable loop from a supporting wire, hanging from an overhead inverted beam, is the most common arrangement. Power supply arrangement through cable reel mounted on the bridge with the cable tray on top of the tank can also be provided.

**Control System**

A wide variety of automatic controls with manual override can be furnished to meet any need. The bridge can be set for intermittent operation using a cycle timer. Typically control system ensures sludge scraping in the forward travel and surface skimming in the reverse travel. Intermittent operation cycle period, variation in travel speed and other alterations in the operating cycle can be used to meet the demands of a particular application.
Wide Range of Clarifiers & Thickeners

Clarifier - Circular / Square Tank
- Full Bridge - Central Drive • Half Bridge - Central Drive
- Lamella / Tube Settler • Rotating Bridge - Peripheral Drive

Clarifier - Rectangular Tank
- Travelling Bridge Sludge Collector
- Chain & Scraper Sludge Collector

Clarificellulator - Circular Tank
- Rotating Bridge • Peripheral Drive • With 2 / 4 Flocculators
- Central Driven With Independent Flocculator Drives / Dual Stack
- Concentric Flocculator Drive

Reactor Clarifier - High Rate Solid Contact type
- Full Bridge With Side Feed
- Half Bridge With Bottom Feed

Clarifier - Suction type and Peripheral Feed Suction type
- Full Bridge - Central Drive
- Half Bridge - Central Drive

Gravity Thickener
- Central Drive - Full / Half Bridge Type
- Without Rake Lifting Device
- With Manual / Semi-automatic / Automatic Rake Lifting Device
- Peripheral Drive - Rotating Bridge

Dissolved Air Flotation Thickener
- Gravity Belt Thickener