

# The BEAST®

Septage-FOG-Sludge Screening System  
VFA-DM



Septage BEAST Property of Moab UT

# The BEAST

## The Next Generation of Septage, FOG & Sludge Screening



FOG BEASTS Property of Delcora WRTP Chester PA

Screening septage, FOG or sludge comes with a long list of problems. The two biggest complaints are the inability to process heavy debris and long truck unloading times. These problems are the result of not having the proper equipment for the application. The BEAST has been engineered specifically for heavy debris laden sludges such as septage.

**Unique Tank Design.** Standard tank designs promote debris sedimentation. The BEAST has a two-stage tank with a curved, sloped inlet section that directs the flow into the screen cylinder. The hopper trough extends beyond the cylinder opening which reduces screenings recycle. The screen is supported at the drive end which eliminates the need for support arms and solves ragging problems.

**Dual Drive System.** This feature enables the screen basket and auger to operate independently. The speed of the auger is increased to provide faster debris removal while the speed of the screen basket is decreased to improve capture efficiency.

**Angle of Inclination.** The drum screen component sits at a 25° angle inside the tank to enhance capture even further.

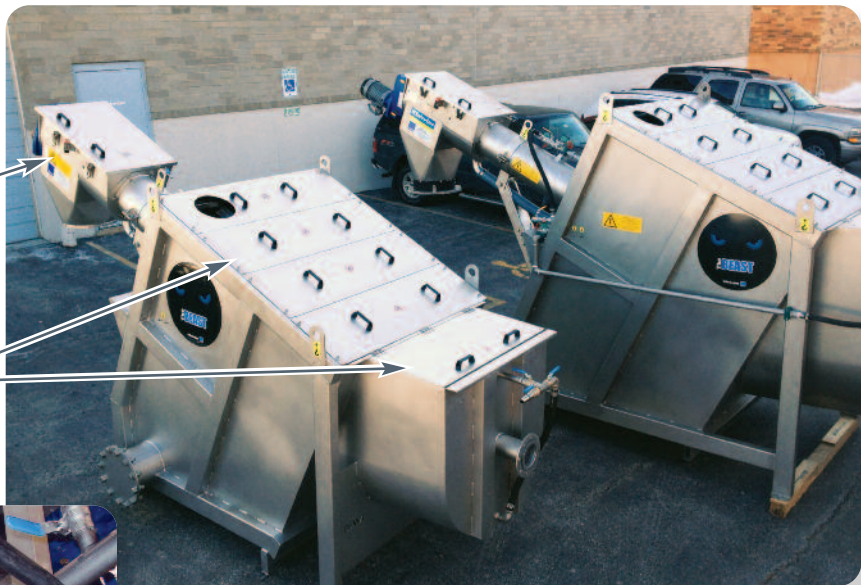
**Sequence of Operation.** As the pumped flow enters the tank, it is discharged directly into the rotating screen basket. As the screen rotates, debris is captured on flights or scoops that carry the debris around the basket and deposits it into the auger trough.



From the trough, debris is conveyed by the auger into the washing zone and then to dewatering. The percent of dryness achieved is dependent upon the debris concentration and the type of debris in the influent. Debris capture is based on the material in the flow.

Angle of inclination is 25°

Two-stage tank design narrows the inlet



Beast 1200 & 1400 side-by-side



4 Heavy duty industrial bearing assembly

8 Dual seal on the screen cylinder

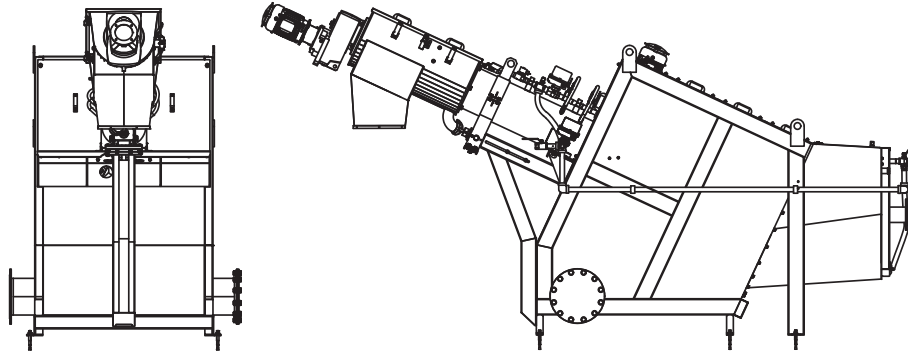


11 No support arms on the influent side of the screen drum

10 Trough extends beyond the screen opening

## Features & Benefits

- 1 Engineered for large, heavy debris laden liquid/solid separation applications requiring fast processing** - Each feature solves a specific problem associated with these types of applications.
- 2 Proven Flo-Drum technology from SAVI** - Over 300 installations worldwide.
- 3 Dual drive system** - Drum and auger are driven independently to optimize debris capture and removal.
- 4 Screen is mounted using a large diameter, single row, heavy duty industrial bearing assembly with a built in grease fitting** - Better resistance to axial and radial loading with fewer maintenance points.
- 5 Two-stage tank design narrows the inlet** - Debris laden liquid is fed directly into the screen basket which prevents sedimentation.
- 6 The auger is run at a faster speed** - Removes the inorganic material faster.
- 7 The screen cylinder is run at a slower speed** - Produces better debris capture and cleaning of the screen.
- 8 Dual seal on the screen cylinder** - Prevents bypass and improves capture of fine material.
- 9 Angle of inclination is 25°** - Screen captures more debris and removes it faster.
- 10 Trough extends beyond the screen opening** - Reduces screenings recycle by preventing debris from dropping out of the front of the screen basket.
- 11 No support arms to collect rags and wipes on the influent side of the screen drum.**
- 12 Eliminates brushes inside the screen basket** - Less extrusion and manipulation of the screenings for better capture and less maintenance.
- 13 Additional monitoring options and security access may be added** - Controls can be as basic or as sophisticated as required.
- 14 Optional bagger is available** - Maintains a cleaner screenings area.



BEAST VFA-DM1200 drawing with side discharge and pivoting function.

## Specifications

|  |         |                   |                    |                    |
|--|---------|-------------------|--------------------|--------------------|
| <b>Drum Screen OD</b>                    | mm      | 800               | 1200               | 1400               |
|  |         | Septage Only      | Septage-FOG-Sludge | Septage-FOG-Sludge |
| <b>Capacity</b> [at 3-4% solids content] | gpm     | 450               | 660                | 875                |
| <b>Screen type</b>                       |         | Perforated plate  | Perforated plate   | Perforated plate   |
| <b>Openings</b>                          | mm      | 6                 | 6                  | 6                  |
| <b>Angle of inclination</b>              |         | 25°               | 25°                | 25°                |
| <b>Wash water</b>                        | gpm/psi | 30 @ 40-60        | 43 @ 40-60         | 56 @ 40-60         |
| <b>Drive motor - Drum Screen</b>         | Hp      | 1.5               | 2                  | 2                  |
| <b>Drive motor - Shafted Screw</b>       | Hp      | 2                 | 2                  | 2                  |
| <b>Controls</b>                          |         | NEMA 4X or NEMA 7 | NEMA 4X or NEMA 7  | NEMA 4X or NEMA 7  |
| <b>Voltage</b>                           | V/P/H   | 240/480/3/60      | 240/480/3/60       | 240/480/3/60       |

## Materials of Construction

|   |   |
|---|---|
| <b>Screen media</b>                       | AISI 304 SS (316 Optional)                      |
| <b>Transport tube</b>                     | AISI 304 SS (316 Optional)                      |
| <b>Shafted screw</b>                      | High Strength Alloy Steel (304/316 SS Optional) |
| <b>Tank, piping, supports, end plates</b> | AISI 304 SS (316 Optional)                      |
| <b>Fasteners</b>                          | AISI 304 SS (316 Optional)                      |