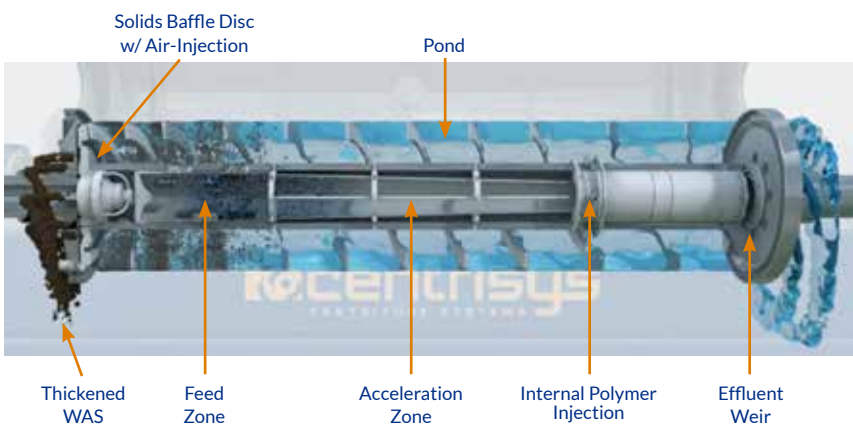




# The Most Efficient Solution to Thicken Sludge

## Centrisys Sludge Thickener

The Centrisys Sludge Thickener (THK Series) is specifically engineered to achieve high-performance thickening of biosolids. The non-conical design results in greater G-volume, allowing for the highest capacity of flow to the centrifuge. The THK improves upon existing technologies using fundamental principles of a 1) Centrifuge - 3,000 Gs, 2) Rotary Drum Thickener - fully enclosed and small footprint, 3) Dissolved Air Flotation (DAFT) - air injection. The patented Hydro-Pneumatic design has proven that NO polymer is required under normal conditions (150 SVI).



- No-Conical = greater comparative capacity
- Proprietary hydro-pneumatic control of cake solids
- Independent control of liquids and solids weir
- Greater G-volume
- Proprietary internal polymer injection system (optional)
- Highest grade materials of construction
- Proprietary tungsten carbide wear plows for grit and trash

## Typical Applications

- Primary sludge
- Secondary (waste activated) sludge
- Oxidation ditch sludge
- Digested sludge
- MBR (membrane bioreactor) sludge
- Dilute pulp and paper waste prior to dewatering
- Concentration of food processing waste
- Concentration of algae
- Concentration of yeast

## Features

- Proven no polymer required under normal conditions (150 SVI)
- Smallest and most efficient footprint for given flow rates compared to gravity belt and rotary drum thickening technologies
- Contained vapor system
- Expected ROI of 2.5 years due to polymer savings alone
- Reduced operating and maintenance costs
- 50% less power consumption compared to standard dewatering centrifuges
- Reduced installation costs by 35-50% (\$/gpm)
- Simple to operate with minimal operator attention



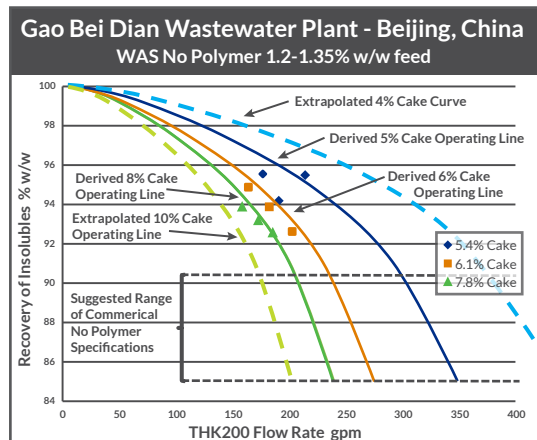
**Thickening Solutions: USA Built, Sold & Serviced Around the World**



**Sludge Thickener THK Series**

|                                      | THK200        |         | THK350         |         | THK600          |         |
|--------------------------------------|---------------|---------|----------------|---------|-----------------|---------|
|                                      | Maximum       | Average | Maximum        | Average | Maximum         | Average |
| Feed Flow Rate w/o Polymer* gpm      | 180           | 125     | 320            | 265     | 765             | 640     |
| Feed Flow Rate w/ Polymer* gpm       | 250           | 200     | 500            | 425     | 1,100           | 800     |
| Approx. Bowl Diameter in (m)         | 18 (0.45)     |         | 21 (0.53)      |         | 26 (0.66)       |         |
| Total Static Weight - Empty lbs (kg) | 5,000 (2,950) |         | 10,800 (4,900) |         | 27,000 (12,250) |         |
| Standard Main Drive HP               | 40-50         |         | 50-75          |         | 150-200         |         |
| Standard Scroll Drive HP             | 10            |         | 15             |         | 25              |         |
| Standard Total Installed HP          | 50-60         |         | 75-90          |         | 175-225         |         |

| Sludge Thickener THK Series Performance |             | Waste Activated Sludge (WAS) | WAS/Primary Blend |
|---|-------------|------------------------------|-------------------|
| No Polymer Specific Power* kW/gpm       | Minimum     | 0.07                         | 0.08              |
|   | Maximum     | 0.18                         | 0.19              |
|   | Average     | 0.12                         | 0.15              |
| Polymer Specific Power* kW/gpm          | Minimum     | 0.05                         | 0.05              |
|   | Maximum     | 0.15                         | 0.18              |
|   | Average     | 0.08                         | 0.10              |
| Average Solids Recovery % wt./wt.       | w/o Polymer | 93                           | 90                |
|   | w/ Polymer  | 99                           | 97                |
| Average Cake Solids % Total Solids      | w/o Polymer | 4 to 7                       |                   |
|   | w/ Polymer  | 5 to 10                      |                   |



\*Values are approximate for Influent Solids of 0.5% to 1.5% WAS. Specific power estimations are for normal flows. Contact Centrisys for project-specific calculations.