

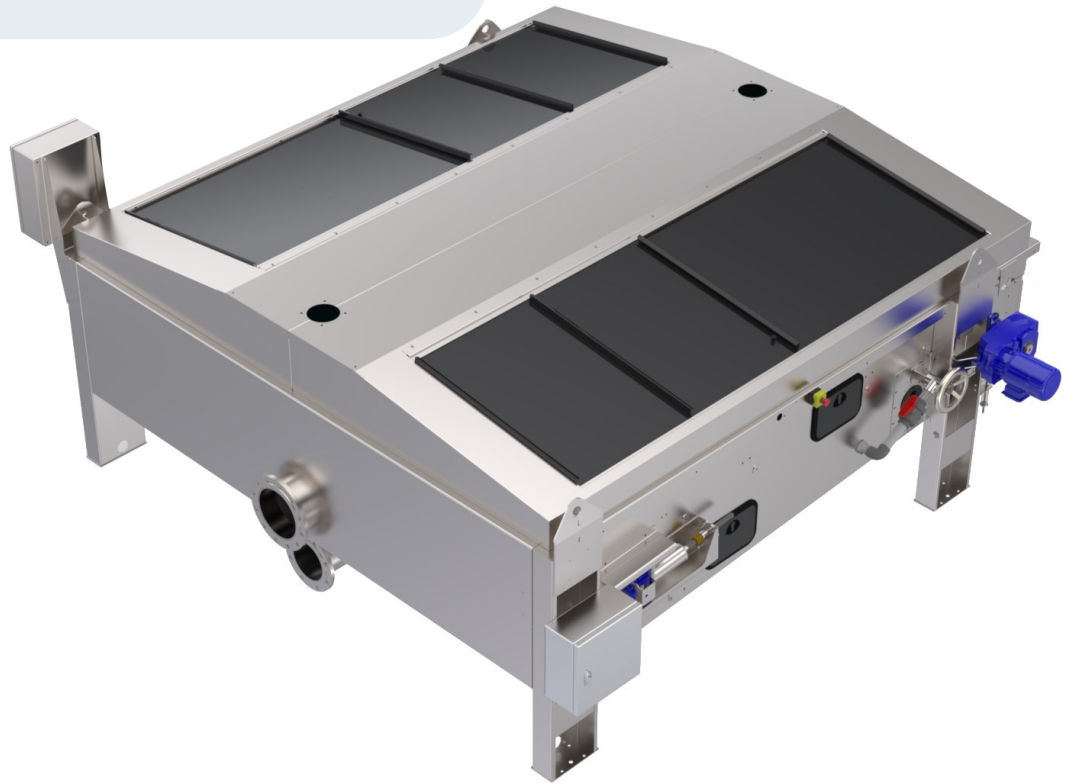
# GRAVITY BELT THICKENER

TECHNICAL SPEC:

100 SERIES

The Unison range of Gravity Belt Thickeners make use of gravity and a porous belt to thicken sludge that has been conditioned with polymer. These units are typically used before the digestion stage, before mechanical dewatering or before transport of sludge to a treatment or disposal site.

Unison is a wastewater machinery brand of Solids Technology Ltd. and is a full subsidiary of Kent Stainless (Wexford) Ltd.



Machines are completely manufactured, including control panels, in our factory in Wexford.

Choose from a choice of grade 304, 316L or LDX2101 stainless steel materials.

- All equipment sits on flat floor with no need for concrete bund or special plinths.
- Stainless steel filtrate sump
- Can use final effluent or potable water as wash water
- Bearings, switches & controls all outside wetted area
- Various belt widths depending on the load capacity requirement



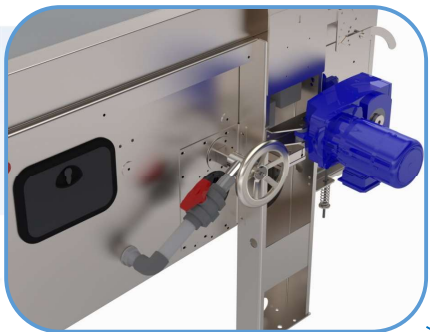
The Gravity Belt Thickener is fully enclosed with integrated odour extraction hood and filtrate sump.



Easy access via top sliding doors for process monitoring and maintenance



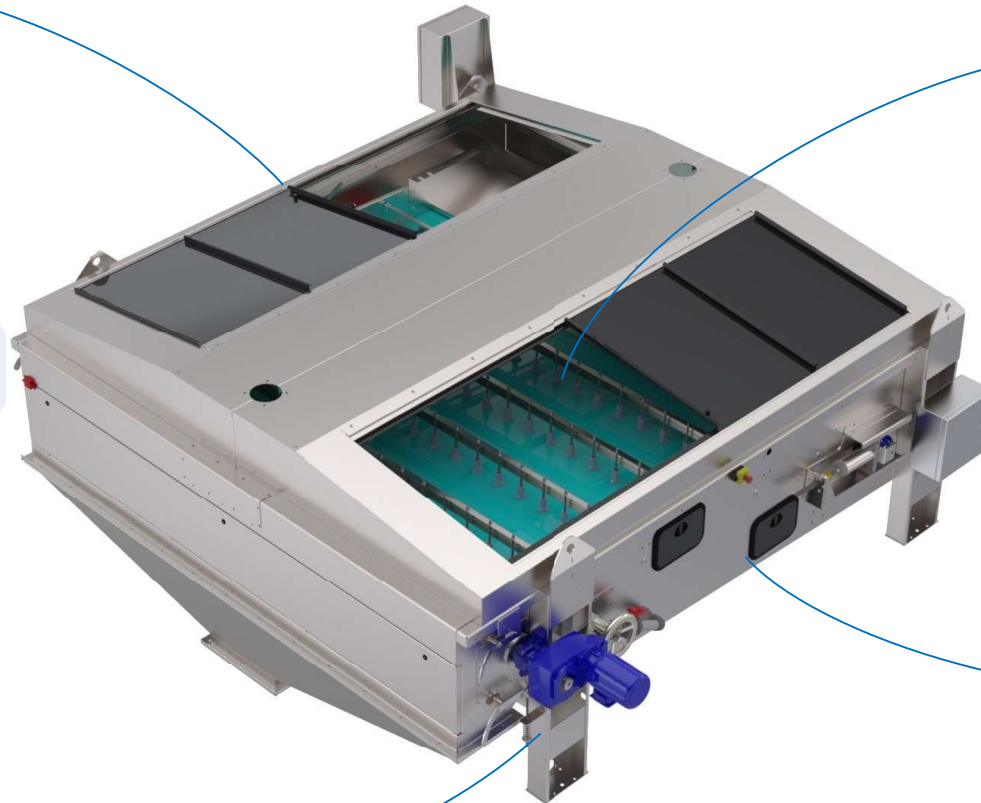
Sludge is spread across the full belt width. Sludge ploughs furrow the sludge as it is processed allowing free area on the belt for maximum filtrate drainage.



All moving parts are located outside the wetted area allowing for easier maintenance. GBT's are built from durable grade 304 stainless steel ensuring long life in excess of 20 years.



Access points are located throughout the machine. Vision panels allow the thickening process to be safely monitored during operation.





**Gravity Dewatering Zone**

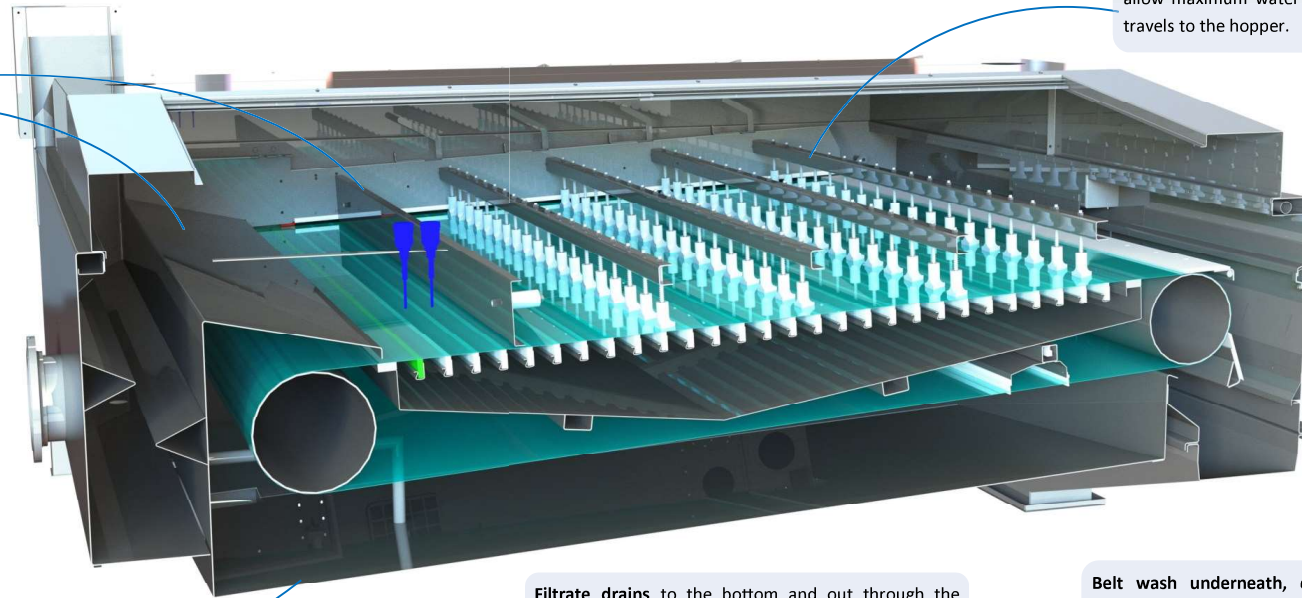
- **Sludge distributor** ensures the conditioned sludge is uniformly distributed over the full belt width.
- **Sludge ploughs** furrow the sludge.
- UHMWPE sections under belt **prevent sagging**
- **Ploughs rotate** when debris are encountered

**Odour Extraction** connections on the top canopy to integrate with an odour control system.

Machines are typically supplied with **Continuous Spiral Type Belt**.

**Another ramp** to hold back the sludge so that it rolls to allow maximum water to drain off before the sludge travels to the hopper.

**Low Ramp** to ensure flocs are not broken up before arriving on the belt. The **Gate** ensures the sludge is spread across the full width of the belt.



**Filtrate drains** to the bottom and out through the filtrate outlet.

**Belt wash underneath, coupled with scraper**, to ensure the belt is cleaned on returning to the beginning of the process.

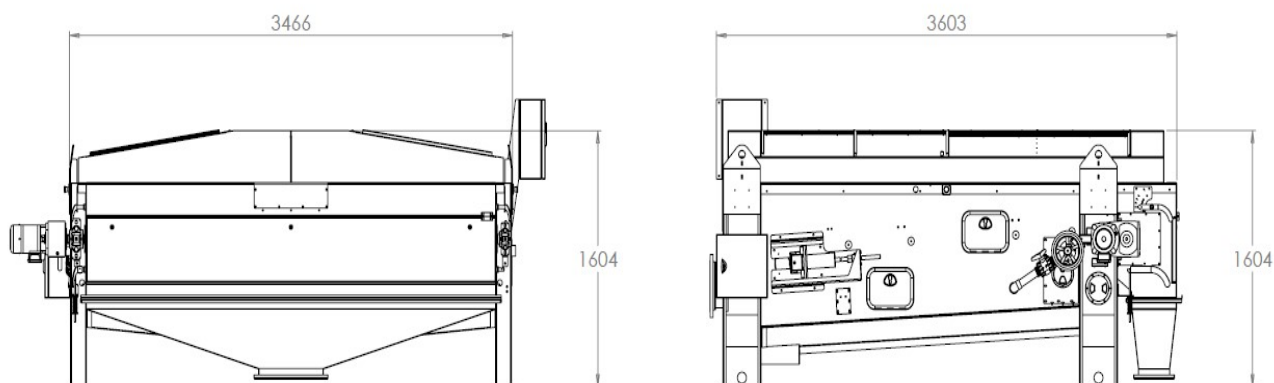


All machines are supplied with a **spring pack tension system for optimal belt alignment on the rollers**. There is no steering but there are guides within the machine to track the belt.

# GRAVITY BELT THICKENER

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Model	110	115	120	125	130 (shown)
Belt width (mm)	1000	1500	2000	2500	3000
Total Filtration Area m <sup>2</sup>	4.8	7.2	9.6	12	14.4
Length	3603	3603	3603	3603	3603
Width	1466	1966	2466	2966	3466
Height	1604	1604	1604	1604	1604

## Features Unison Gravity Belt Thickener

- Stainless Steel construction with optional grades 304, 316 & LDX2101 Duplex Stainless Steel.
- Adjustable Sludge deflection unit and/or dual mode system for optimum dry solid results.
- Fully Enclosed machine with easy access for operations and maintenance.
- All components outside the enclosed area ensuring much longer life.
- Low Energy Cost
- Easy installation on a flat floor– no special civil requirements.
- Wide range available to suit all applications.
- All equipment CE marked

Solids Technology is a full subsidiary of Kent Stainless (Wexford) Ltd. Ardavan, Wexford

Phone: +353 (0)53 914 3216  
 UK Freephone: 0800 376 8377  
 Fax: +353 (0)53 914 1802  
[www.kentstainless.com](http://www.kentstainless.com)

