

HyBAND[®]
CENTRE FLOW
BAND SCREENS



▶ Which ever way you look at it, it just works!



▶ HyBAND® is built to the highest standards to provide longevity and life cycle value. HyBAND® design has passed Finite Element Analysis for stresses and strains under the toughest of conditions.

So many applications

- HyBAND® is a heavy duty centre flow band screen used in the headworks of municipal sewage treatment plants.

The centre flow profile means a large surface area is presented to the influent, resulting in a higher flow capacity and lower headloss when compared to other screen types.

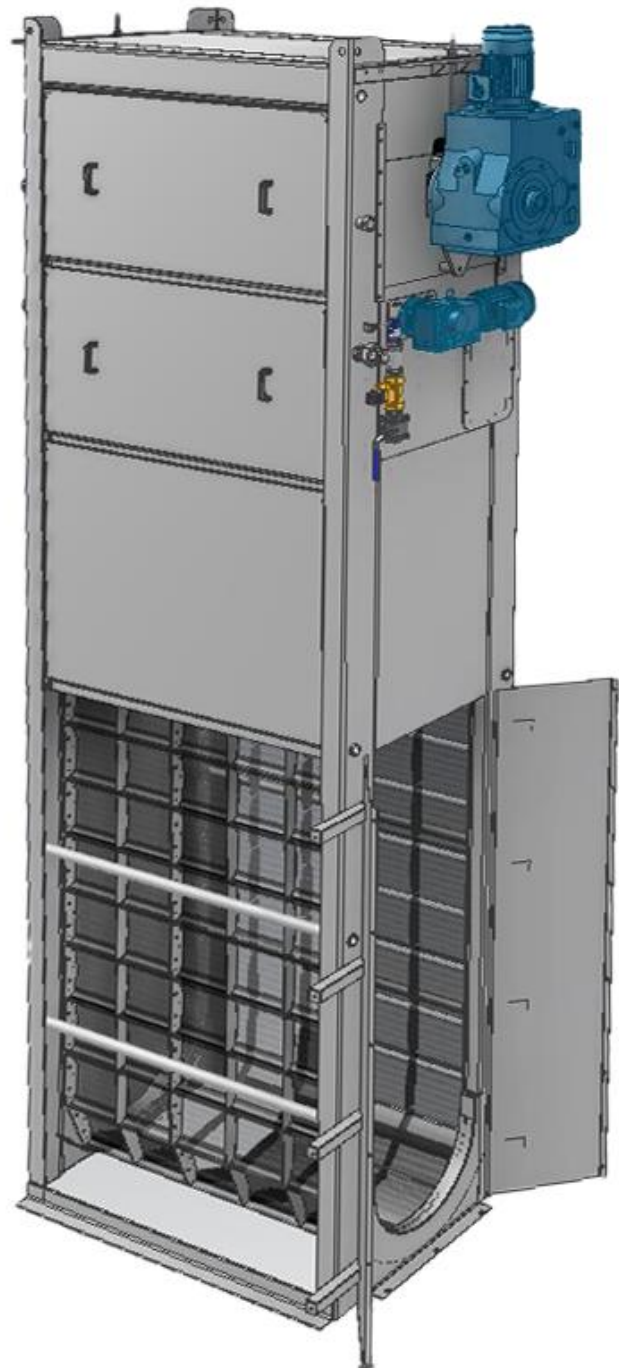
HyBAND® is suitable for screening of raw sewerage and pre-MBR screening.



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Key Features

- ▶ High capture ratio due to 2D screening results in excellent screening efficiency
- ▶ Heavy duty stainless steel construction including filter plates for long life in toughest conditions
- ▶ Reduced maintenance on both the downstream liquid and solids streams
- ▶ No submerged bearings or sprockets
- ▶ No hair pinning or blockages due to panel design
- ▶ High flow capability from centre flow profile
- ▶ Easy access to wear parts from outside the channel without removing the screen



Flow Profile



- HyBAND® is a centre flow screen. The flow enters the centre of the screen and exits through either side and underneath of the band.

This results in a very large surface area being available for screening, providing a much higher capacity per metre channel width.

This provides the added benefit of low headloss values when using low open area or small aperture screening panels.

Screening removal simplified



- ▶ The perforated panels are reverse cleaned via a spray bar system and concurrent (in the opposite direction) rotating brush. The screenings are washed into a central launder and then discharged via a sluice to the downstream screenings handling system.

System components

8 Main Drive

Heavy duty main Geared Motor which drives the

10 Brush Drive

Geared motor which rotates the brush

7 Washwater

Washwater connection for spray bar system

6 Screenings Discharge

Screenings are discharge through a U-section flange

5 Effluent Discharge

Screened effluent discharge through the screen panels

4 Panel Seal

Sealing between the screen frame and panels

1 Centre Feed

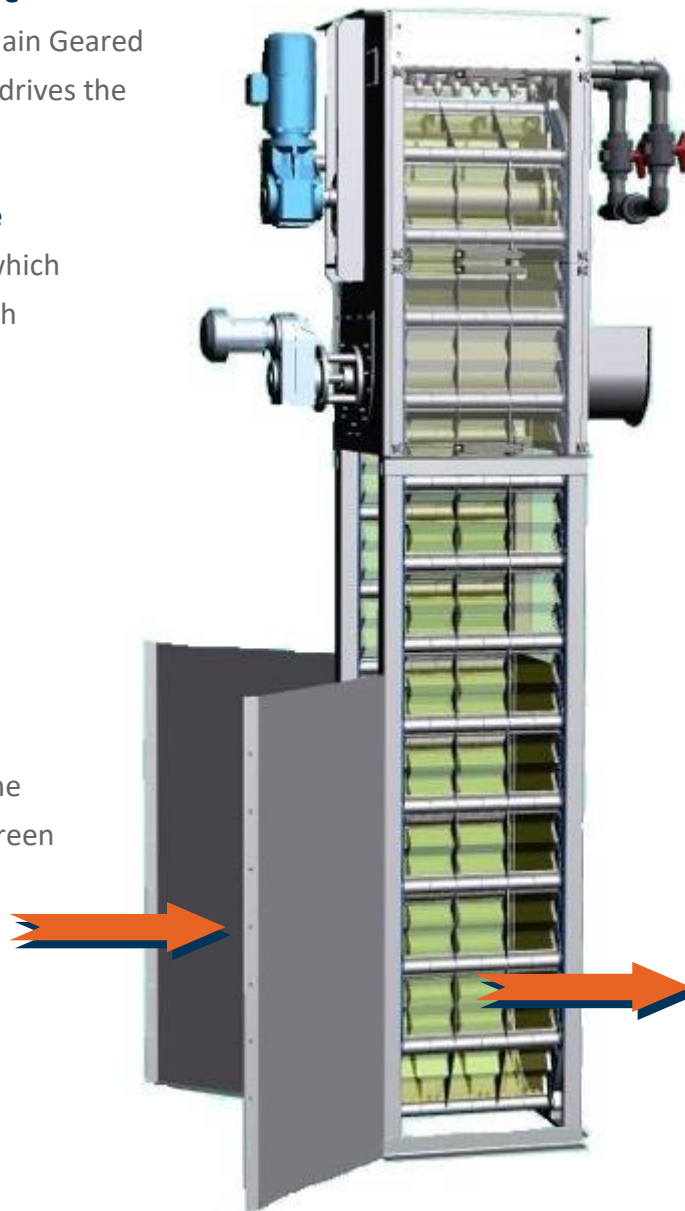
Raw sewage enters the centre of the band screen

2 Seal Plates

Channel Seal Plates to direct flow through screen

3 Screening Panels

Perforated panels that run in a track system and are connected to a chain



HyBand sizing

Table of sizes

ITEM	SIZE 10	SIZE 20	SIZE 30	SIZE 40	SIZE 50
Capacity Range (L/s)	50-300	150-750	250-1500	500-2000	750-2500
Inlet Width A (mm)	350	500	660	820	980
Band Panel Width B (mm)	600-1,200	600-1,800	600-1,800	600-2,100	600-2,100
Discharge Height C (mm)	To Suit	To Suit	To Suit	To Suit	To Suit
Pitch (mm)	254	254	254	254	254
Aperture (mm)	2-6	2-6	2-6	2-6	2-6
Aperture Profile	Perforations	Perforations	Perforations	Perforations	Perforations
Band Speed (m/min)	6	6	6	6	6
Washwater Demand (L/s/m Panel Width)	1.1	1.1	1.1	1.1	1.1
Washwater Pressure (bar)	5	5	5	5	5
Max Static Differential (mm)	1,500	1,500	1,500	1,500	1,500
Max Operating Differential (mm)	1,000	1,000	1,000	1,000	1,000

Build Specification

- ▼ The main shaft is fully fabricated from stainless steel and is connected to the nylon sprockets via a bolted flanged connection.

Bolted covers are provided to allow easy access for inspection and maintenance.



SECTION	SPECIFICATION
Main Frame	304/316 stainless steel
Covers	304/316 stainless steel
Band Panels	304/316 stainless steel
Band Chain	304/316 stainless steel
Band Chain Rollers	Combined UHMWPE/Oil-impregnated Nylon
Internal Guide Tracks	304/316 stainless steel
Main Bearings	Painted Steel
Sprocket	Oil-impregnated Nylon
Drive Shaft (s)	304/316 stainless steel
Geared Motor (s)	Pointed Cast Iron
Spray Bar & Nozzles	304/316 stainless steel
Brush	Combined UHMWPE/PP

Expertise

- Hydroflux Epco will provide advice on the most appropriate selection of HyBAND®.

We run computer models to optimise the velocity profile through the inlet, panel and discharge section to maximise screenings capture ratio.

Hydroflux Epco can also provide the necessary advice on the screenings transfer and dewatering system sizing and expected yield.

We can also provide custom launders along with the duty matched HUBER WAP range of Wash Presses.



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“Hydroflux can provide complete inlet works packages inclusive of launders, wash presses, grit removal, grit washing and outloading systems”

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Hydroflux EPCO is GRS Certified to the following standards

ISO 45001 SAFETY MANAGEMENT SYSTEM



Certificate Number: 4774801610007

ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEM



Certificate Number: 47714001610007

ISO 9001 QUALITY MANAGEMENT SYSTEM



Certificate Number: 4779001610007

ISO 31000 RISK MANAGEMENT SYSTEMS



Certificate Number: 477310006176001