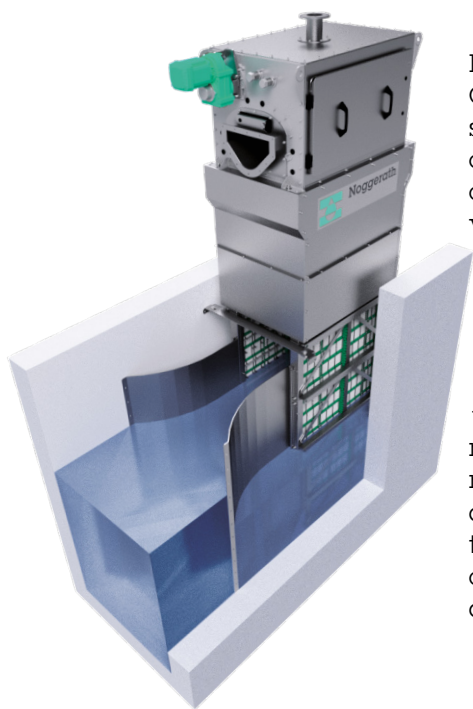




Next stage design
for enhanced function
and operational
efficiency

Noggerath® Centre-Flo™ Band Screen The New Generation of fine screening

Fine and Ultra-fine screening for municipal and industrial wastewater applications to protect efficiently downstream processes at highest capture rates and increased hydraulic capacity.



Passavant-Geiger / Aqseptence Group offers an efficient and space saving screening solution with a revolutionary drive concept. Contrary to the conventional technology, the Centre-Flo has a chainless drive with shaft and pinion on the clean outside of the screen belt.

The screen belt geometry and the large open area of the panels enables highest capture rate of screenings. Clean side and dirty side strictly separated, and so a "carry over" effect of solids on the clean water side are excluded.

With the curved honeycomb panels, Noggerath® ensures an exceptional performance in wastewater treatment. In addition, there are further innovative filter elements such as the flat honeycomb screening elements or the perforated panels. Both options can be made by additive manufacturing (recommended) or stainless steel (if required).

The nature-inspired honeycomb screening elements generate extremely high open area (up to 90%) and thus reduce the operating headloss and enable significantly higher throughput.

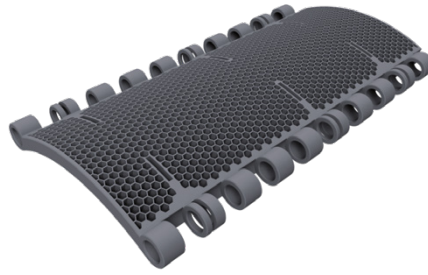
Function

The diverter plates direct the influent flow into the submerged section of the screen. The flow then undergoes a 90° change in direction to flow through the Centre-Flo™ screening panels. This design results in a large open area so that the head loss is reduced and hydraulic capacity increased. Solids captured by the screen will gradually accumulate in the panels and eventually the upstream water level

will increase. On reaching the set operating high water level, the screen operates until the low operating water level is reached. The captured screenings are carried up by the filter panels and larger solids by the lifters to the discharge point. At the upper turning point, the screenings are flushed by a wash water system, located on the outside of the belt, into a trough installed at the top of the unit.

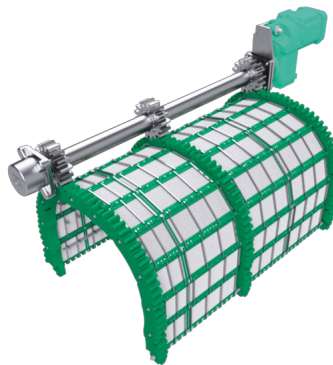
Design details

Honeycomb Hi-Flow Panel



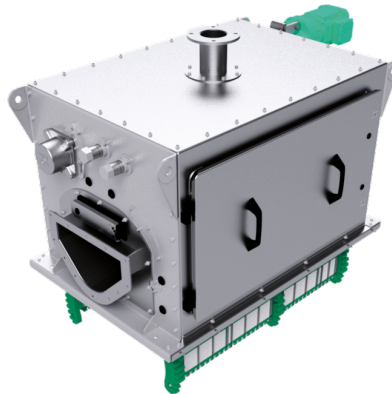
Patented Honeycomb Hi-Flow Panel provides the industry's highest hydraulic performance with over 90% open area; provides for increases of 20 to 40% hydraulic capacity compared to full-bore perforated panels. Honeycomb panels with curved sieve surface due to innovative manufacturing technology. Easy-to-replace panels.

External drive system



Patented external drive system with all moving parts, including drive shaft and sprocket, on the clean side of the screen to minimize breakdowns and to facilitate any maintenance. Guide and drive link (without chains) are wear-resistant and easy to maintain.

Modular head



Modular head for improved safety, visibility, and cleaning. The head includes the drive system, the discharge flume and the spray water system fitted with spray nozzles for maximum cleaning efficiency. Versatile clear & steel hatch options for optimal monitoring. Integrated safety screen, made of mesh laser part.

Streamlined, high strength frame design



Streamlined, high strength frame design. Modular design allows the Centre-Flo™ height and band screen width to be optimized to suit channel, capacity and head loss requirements.

Improved modular cover system with light weight covers. Channel depths of up to 10m are feasible with the standard design (Optional deeper channels are possible).

Benefits

- Highest screenings capture rate technology on market due to efficient flow path and panel media. (up to 85%)
- Highest hydraulic performance available with the patented honeycomb panel
- No accumulation of debris below the machine possible
- Low maintenance with virtually due to less wearing parts
- Improvement of downstream processes provides operational and maintenance efficiencies
- Excellent retrofitting capability to existing channels to improve plant hydraulics and screenings capture efficiency e.g. fine screen or step screen replacement
- Can be designed to accommodate channel dimensions and hydraulic requirements; highly suitable for deep channel designs

Design sizes & performance

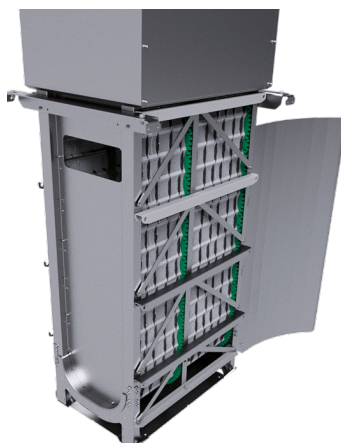
Flowrate [l/s]	200–5,000
Channel width [mm]	700–2,400
Channel depth [mm]	up to 10,000
Opening Curved honeycomb panels [mm] (STANDARD)	3–6
Opening Full bore perforation [mm] (Option)	1–8
Opening Flat honeycomb panels [mm] (Option)	1–10
Screenings capture rate	up to 92 %

Materials

Frame, Encapsulation	Stainless steel AISI 304L or AISI 316L, others on request
Drive guide links	UHMWPE, oil-impregnated
Panels	Polypropylene, alternatively UHMWPE or stainless steel AISI 316L

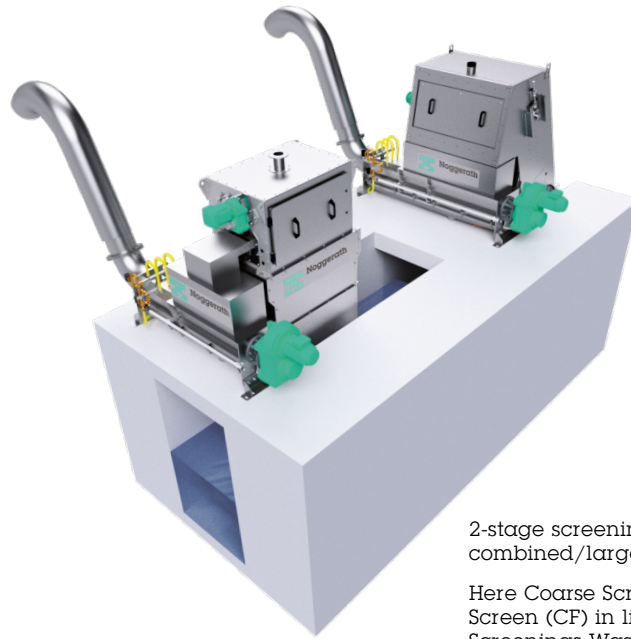
Options

- Optional integral manual or actuated by-pass gate to eliminate the need for a separate by-pass channel.
- Various safety options including limit switches or safety mesh on all inspection hatches.



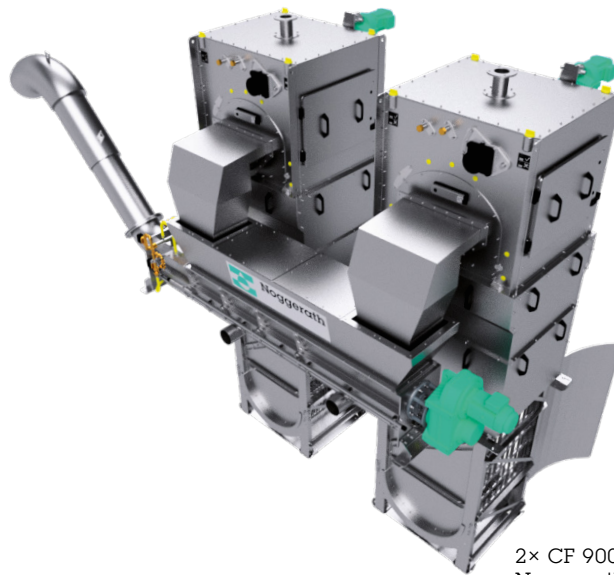
Applications & fields of operation

- Municipal and industrial Wastewater
- Mecanical pre-treatment/ultra-fine screening in front of MBR-processes



2-stage screening recommended for combined/large sewers,

Here Coarse Screen (KUR) and Fine Screen (CF) in line with Noggerath® Screenings Wash Press NWP



2× CF 900-900 discharging into Noggerath® Screenings Wash Press NWP 300-2500

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