

PASSAVANT GEIGER



Passavant Chain Scraper

PASSAVANT

Products & Services

SCRAPER SYSTEMS

Passavant non-metallic chain scraper

Continuous and complete removal of settled bottom sludge and simultaneously forced skimming of floating solids are the main duties of the sludge removal process in rectangular sedimentation tanks.

Requirements

- No interference of the sedimentation process
- Optimize sedimentation
- 24-hour operation without failure
- Materials must be resistant to water content and environmental influences
- Rigidity and stability of flights
- No resuspension of sludge by disturbance of settled sludge

The Passavant non-metallic chain scraper system meets these requirements perfectly and its design offers even more advantages.

Areas of application

- Municipal and industrial WWTP
- Primary and secondary sedimentation tanks
- Surface skimmers
- API systems

Options

- Tanks covering systems
- Scum removal systems
- Electrical control systems

The technical design of the system ensures a low stretch and minimum water absorption of the components. Even after extended operation the components elongation is compensated by the slack-track situated near the drive shaft. Additionally it is possible to adjust the chain tension by means of an approved chain tensioning system without emptying the tank.

Advantages

- Low own weight and chain elongation
- Teeth grip without difficulty under operating load
- Low wear and operating costs
- Robust and long-live design
- No resuspension of sludge in flight profile due to well-engineered flight geometry

1 Drive unit on tank wall

2 Drive shaft idler with maintenance-free and self-adjusting bearing

3 High stability design of idler shaft stub

4 Collector chain with preformed side flanges

5 Chain link on scraper flight with torsion-absorbing VA bracket

6 Flight on return-track

7 Total system for bottom scraper and surface skimmer

8 Steel chain with self-adjusting device



Drive and drive shaft

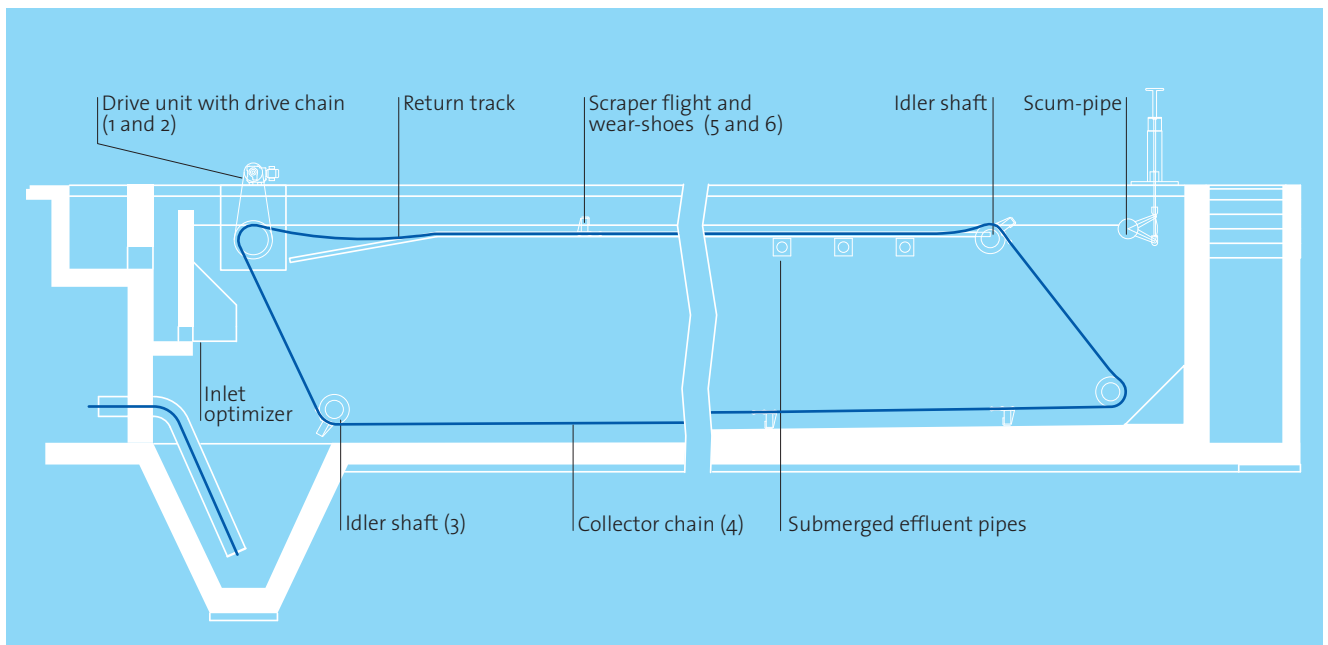
- Drive motor is mounted on the tank wall
- Electrical overload protection
- Drive shaft made of stainless steel
- Maintenance-free shaft, self-adjusting

Non-metallic sprockets

- Double segmented sprockets are designed for quick installation and adjustment
- Segments are joined by a puzzle connection
- Sprocket components joined tightly and rigid
- Sprockets supplied with hunting tooth design
- Easily replaceable bearings
- Sprockets supplied with chain-saver rim

Collector chain

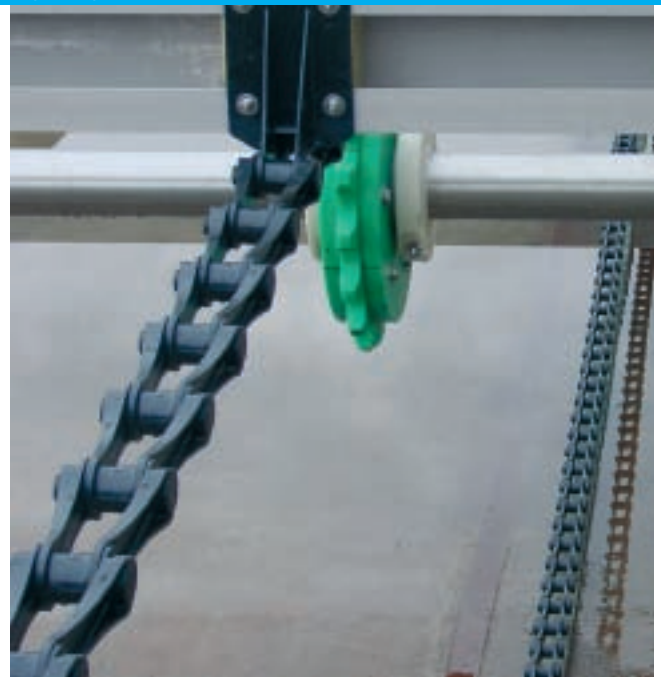
- Glass-fibre reinforced polyester (PET)
- Resistant to UV and chemicals
- Low own weight of 1.9 kg/m
- Stretches only approx. 1% under max. operating load
- Operating load approx. 14 kN and breaking load approx. 34 kN
- Preshaped chain side flanges
- Extended life with low pulling force
- Low water absorption
- Chain pitch 152.6 mm



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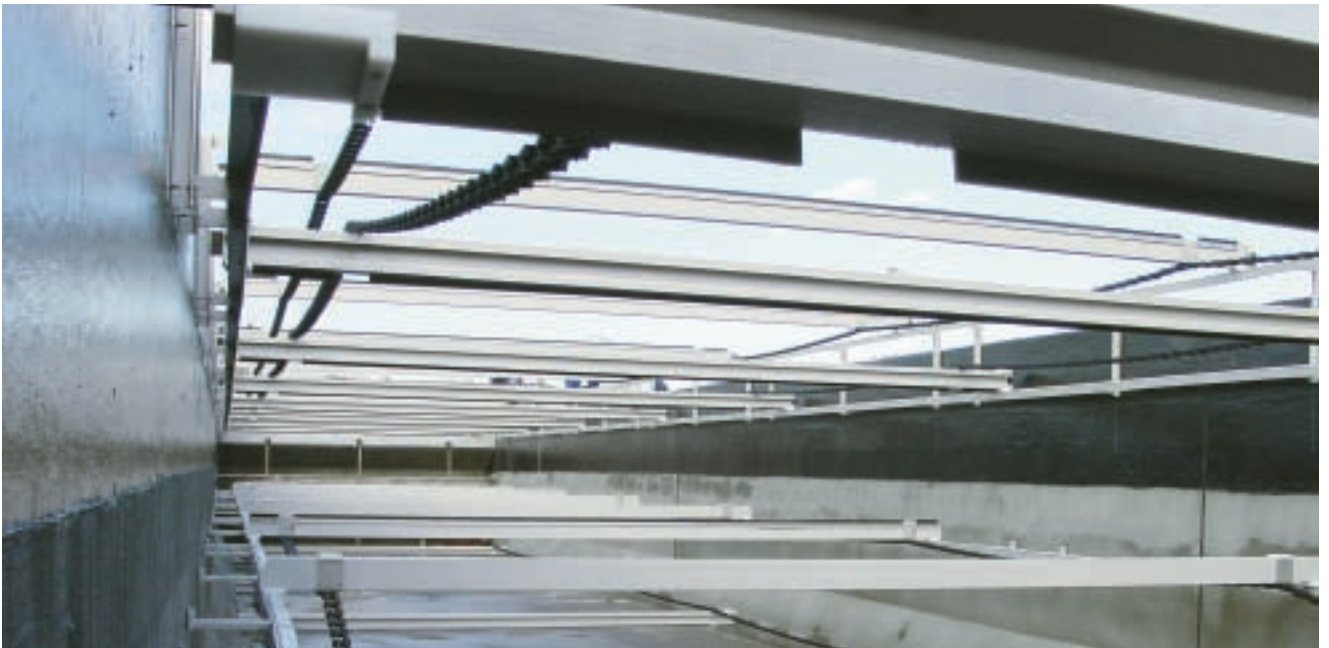


Wear-strips and -shoes

- Resistant to corrosion and chemicals
- Low wear for smooth chain and flight travel
- Wear-strips are easily mounted
- Slots and bevelled ends allow stretching to compensate for temperature changes
- Wear-shoes are available in various widths and thicknesses
- High-quality and wear-resistant material (HDPE)
- Fibreglass-reinforced plastic return tracks with separate HDPE wear-strips

Fibreglass-reinforced flights

- Up to 12 m tank width
- Height 190 mm
- Manufactured by “Pultrusion Technology”
- High rigidity and water resistance
- Very high modulus of elasticity
- Non-buoyant and prevention of sludge resuspension in the profile
- Neoprene wipers for scraper flights
- Supplied with wear-shoes and stainless steel chain attachment links



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Passavant Steel Chain Scraper

The chain scraper for reliable and continuous scraping of bottom sludge and floating scum with only one machine in tanks up to 15 m wide.

Features

- Low friction with roller-guided scraper flights and reduced power requirements
- High operating times with the design of the scraper chains with twelve fold security against breakage
- Drive fitted with overload protection
- Reduced wear of drive chain sprockets by effective hunting tooth design
- Drive shafts with robust wear sleeves
- Frictionless operation with self-lubricating, easy-maintenance bearings
- Idler shaft as a stub shaft
- Easy replacement of 3-split sprockets without removing chain

Areas of application

- Primary and secondary sedimentation tanks with high sludge load
- Storm water holding tanks
- Industrial sedimentation tanks

Options

- Automatic chain tension monitor
- Chains available in steel or stainless steel
- Scraper flights available in steel or stainless steel

Advanced technology for high scraping capacity

The chain scraper is a powerful system. The system is very flexible with various equipment options.

Advantages

- Safe operation with exceptionally high sludge load
- Can be used with high wastewater temperatures



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