



DEWA CHAIN & FLIGHT TYPE

SLUDGE & SCUM COLLECTORS

TECHNICAL SPECIFICATION

CHAIN	Type	Pitch	Rupture Load	Working Load	Weight
Standard	L-K 160	160 mm	25 kN	13 kN	1.65 kg/m
Heavy duty	L-K 160HD	160 mm	44 kN	20 kN	1.90 kg/m
SCRAPER FLIGHTS	Type	Material	Dimensions	Max Lenght	
C-180	C-Channel	GRP	80x180mm	Up to 10 m	
C-220	C-Channel	GRP	100x220mm	Up to 12 m	
C-330	C-Channel	GRP	100x330mm	Up to 12 m	
SPROCKET	Material	Pitch	Note		
Head Sprocket	HDPE	418/618	turnable sprocket		
Idler Sprocket	HDPE	418/618	Optional Split type		
SHAFT	Material	Note			
Head Shaft	AISI 304/316L	Through going			
Tension Shaft	AISI 304/316L	Through going			
Idle Shaft	AISI 304/316L	Stub Type			
BEARINGS	Material				
Head Shaft	Bearing nest PE; Slide bearing HDPE				
RAILS	Material	Dimensions			
Bottom Rail	AISI 304/316L	4x50 mm			
Guiding Bottom Rail	AISI304/316L/PE	15x50 mm			
Non-Metallic Rail	HDPE	15x70 mm			
Return Rail	AISI 304/316L	35x80 mm			
DRIVE UNIT	Type	Material			
Manufacturer	Well known manufacturer or customer specification				
Engine Mount		AISI 304/316L			
Drive Sprocket		AISI 304/PA			
Driven Sprocket		AISI 304/316L/PA			
Drive Chain		AISI 304/PA			
FITTINGS	Material				
Hardware		AISI 304 or AISI 316			

Key Features

- Effected land use compared to circular basins
- Draining not required for tensioning of the collector chain
- Very low energy consumption
- Can be built one on top of the other
- High removal efficiency
- Less wear & maintenance
- Long life span
- Light non-metallic construction
- Low friction



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Over 30 years of experience in sludge treatment technology



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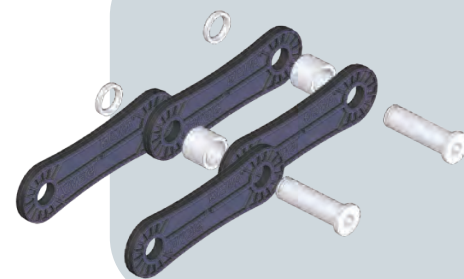
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DEWA CSS (chain scrapers) has been successfully operated in a variety of municipal and industrial applications. Today, there are over 1000 DEWA sludge and scum removal systems in operation throughout the world in various application including water, wastewater, API and desalination.

Rectangular clarifier provides a friendly layout option with minimum dead space between the units, as these units can install parallel or multi-desk clarifiers. The removal efficiency of DEWA CSS (chain scraper system) is higher than that of any other scraper design. CSS mechanism comprise non-corrosive components including collector chain, flights, head and idler shaft sprockets and drive unit with necessary steel parts as rails.

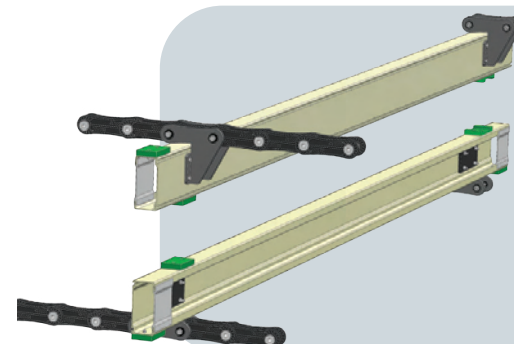
DEWA systems are designed to operate in clarifiers up to 100m long and 12m wide as well as 2-/3-shafts system (bottom or scum) or 4 shafts system (bottom and scum). When there are parallel tanks, also cross collector system can be used to collect removed sludge. For scum removal, DEWA has special effective scum removal canoe system which can be equipped with drive unit or with manual wheel. DEWA system include also unique tensioning system, that allow chain tensioning without emptying tank. That feature save huge amount of maintenance resources.

Spare part service as well as installation and supervising service will serve customers around the world by DEWA professionals. DEWA CSS is certified for drinking water application and has been approved by the Hygiene-Insitut des Ruhrgebiets, Germany.



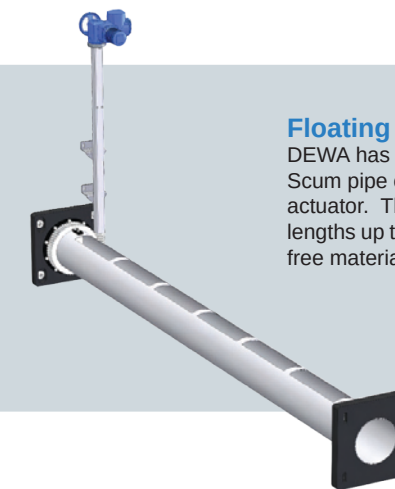
Collector Chain

DEWA collector chain is a combination of side links, pin, rotating spacer sleeve and locking ring. DEWA chain design has distinctive advantages, as the spacer sleeve rotates over the sprockets (principle as bicycle chain). So wearing will not appear on one position as they appear on integrally molded links. Due to this design feature the life span of DEWA chain is considerable long. DEWA has a standard chain for most cases and optionally chain for heavy use.



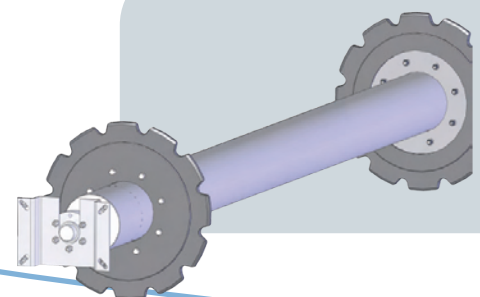
Scraper Flight

DEWA C-channel flights equipped with wear shoes (carry, return and guiding) and stiffeners. Sufficient number of rubber lips can be fixed easily to flights. C-channel flights are available in two different models (C-180 and C-220) with max. length of 12m. Clever construction of C-channel prevent water staying inside flights during operation and will not create unnecessary load for system.



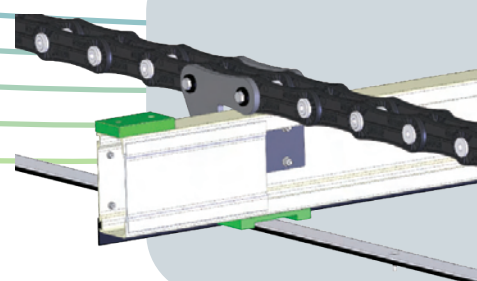
Floating Scum Removal

DEWA has effective "scum pipe" for floating scum removal. Scum pipe can be equipped with manual wheel or electrical actuator. There are different sizes of slotted pipes and lengths up to 12m. Wall brackets and sleeves are lubrication free materials.



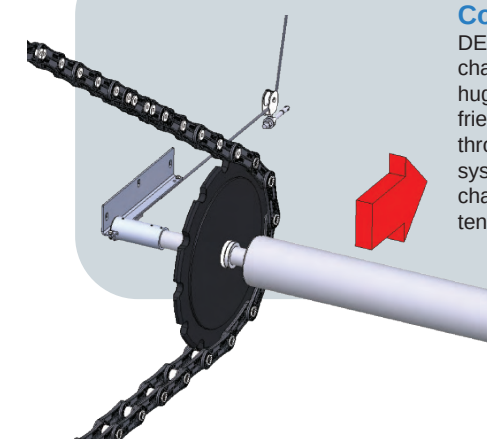
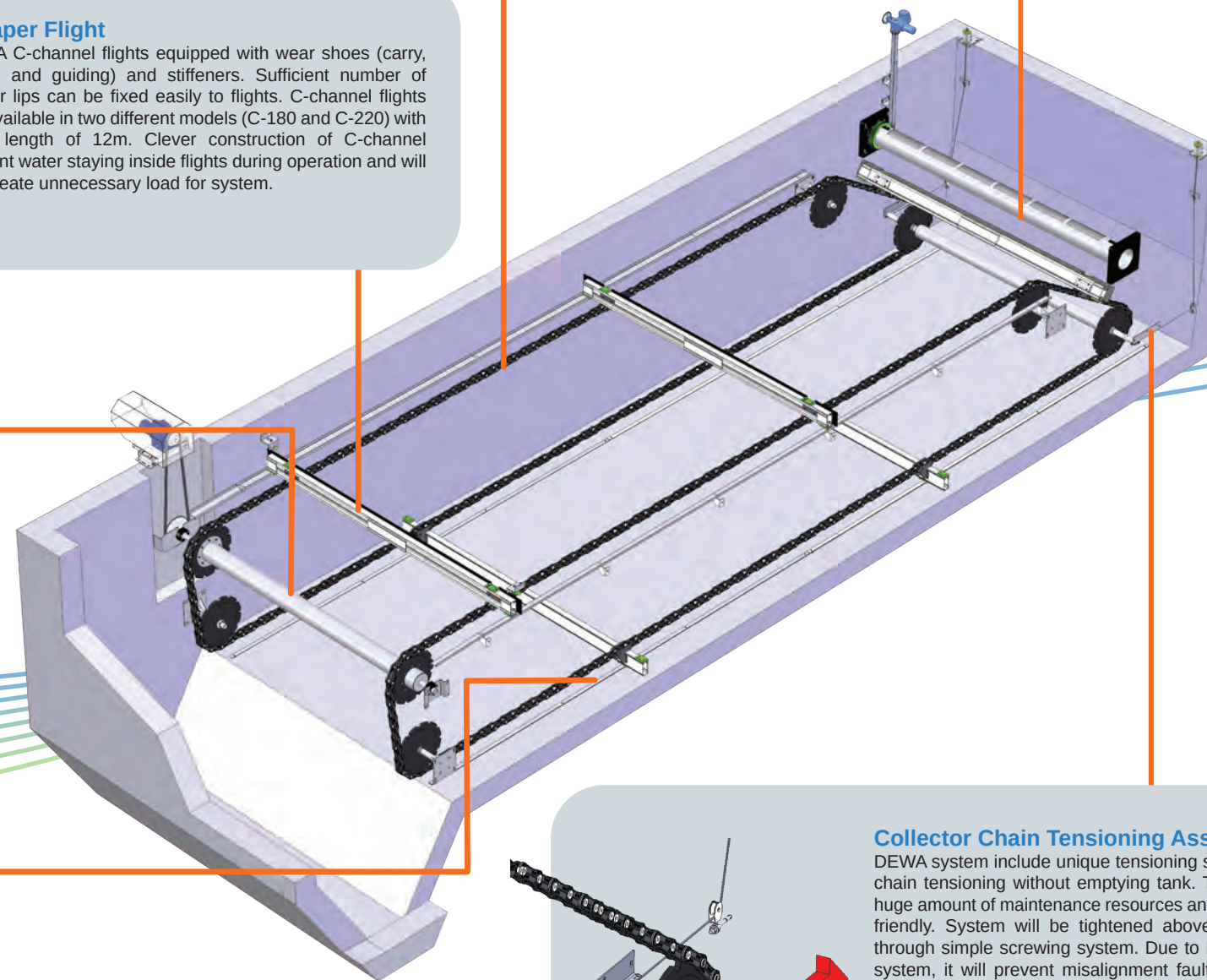
Shaft Assembly

All shafts (head shafts, idler and stubs), collars, wall brackets are made of SS materials and designed for heavy sludge loadings. shaft sprockets (head shaft and idler shafts) are revisable to double life span. All bearings are non lubricate type, no regular maintenance is required.



Carry and Return Rails

All carry and return rails, wall brackets are made of SS materials. This is to allow smooth sliding and low friction together with DEWA wear shoe parts.



Collector Chain Tensioning Assembly

DEWA system include unique tensioning system, that allow chain tensioning without emptying tank. That feature save huge amount of maintenance resources and is most operator friendly. System will be tightened above the water level through simple screwing system. Due to DEWA tensioning system, it will prevent misalignment faults which cause if chain is loosen. When operator see the necessary for tension, it can be corrected easily in couple of minutes.