

# DEWA CSS

## CHAIN SCRAPER SYSTEM

### TECHNICAL SPECIFICATION

CHAIN (non-metallic)	Type	Pitch	Rupture Load	Working Load	Weight
Standard	L-K 160	160 mm	24 kN	13 kN	2.0 kg
Medium duty	L-K 160MD	160 mm	35 kN	18 kN	2.3 kg
Heavy duty	L-K 160HD	160 mm	40 kN	21 kN	2.4 kg

SCRAPER FLIGHTS	Type	Material	Dimensions	Length
C-180	C-profile	Glass fibre	80x180 mm	Up to 10 m
C-220	C-profile	Glass fibre	100x220 mm	Up to 12 m
C-330	C-profile	Glass fibre	100x330 mm	Up to 8 m

SPROCKETS	Material	Type
Head Shaft	UHMWPE	Z=8 / Z=12
Idler Shafts	UHMWPE	Z=8 / Z=12

SHAFTS	Material	Type
Head Shaft	AISI 304L/316L	HS-150/200
Tension Shaft	AISI 304L/316L	TS-150/200
Idler Shaft	AISI 304L/316L	IS-60/70

BEARINGS	Material	Type
Head Shaft	UHMWPE	Slide bearing
Idler Sprocket	UHMWPE	Slide bearing

RAILS	Material	Type
Return rail	AISI 304L/316L	Z-profile
Floor rail	AISI 304L/316L	I-profile

DRIVE UNIT	Type
Drive Unit	Helical Bevel Gear

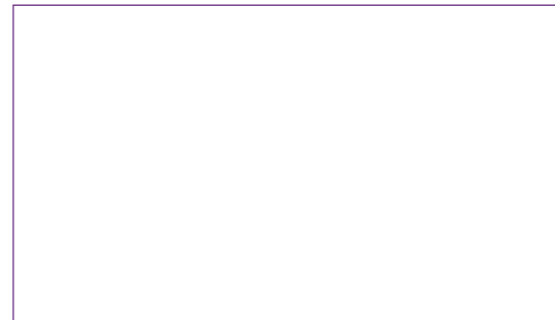
DRIVE SPROCKETS	Type	Material
Drive Sprocket	1" Z=21	AISI 304/316
Driven Sprocket	1" Z=45/60/75	AISI 304/316
Drive Chain	1" Roller Chain	AISI 304/316

FITTINGS	Material
Hardware	AISI 316

#### Key Features

- Efficient footprint compared to circular basins
- Low energy consumption
- Can be built top of each other
- High removal efficiency
- Low wearing rate
- Low maintenance cost
- Long life span
- Light weight
- Durable and non-corrosive components.



**DEWA CSS**  
CHAIN SCRAPER SYSTEM



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# DEWA CSS CHAIN SCRAPER SYSTEM

DEWA Chain & Flight type sludge and scum removal system is effective, reliable, and user-friendly solution for rectangular settling basins. It is used in various application such as water, waste- water, API, storm water and desalination.

DEWA systems are applicable for rectangular basins up to 100m long and 12m wide. DEWA system is available in two/ three -shaft (bottom or surface) or 4 -shaft (bottom and surface) configurations, depending on the clarifier type.

DEWA systems are made of high quality, non-corrosive components. High-grade plastic and stainless steel component make the system robust and reliable. Safety components as overload and flight run indicators enable safe and comfortable use. DEWA system is designed to operate for decades.

DEWA systems have user-friendly tensioning function, that allows chain tensioning without draining the basin. To maximize the user-friendliness the tensioning system can be equipped with automatic tensioner and visual indicators.

For floating scum collection, DEWA provides rotating, tubular, skimmer system called DEWA Scum pipe. The actuation of the scum pipe can be manual or automatic. DEWA Scum pipes are made of stainless steel.



## Collector Chain

DEWA non-metallic collector chain configuration is a combination of chain 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). This design feature prolongs the life span of collector chain and the sprockets. DEWA collector chain is available with three different strength, which is selected according to the clarifier type and size.

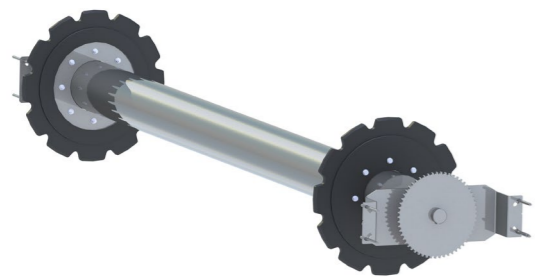
## Scraper Flight

DEWA C-channel flights are equipped with wear shoes (carry, return and guiding) and stiffeners. Sufficient number of bottom and side rubber lips are selected according the clarifier type and size. C-channel flights are available in three different models (C-180, C-220 and C-330) with max. length of 12m.



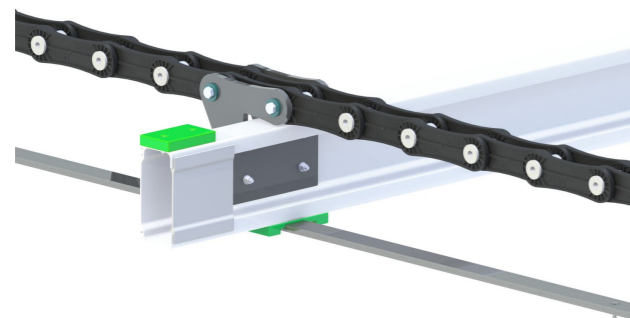
## Floating Scum Removal

DEWA has effective "scum pipe" for floating scum removal. Scum pipe can be equipped with manual or electrical turning actuator, which turn the slotted pipe. Rotating degree and technology can be selected according to the water level variation.



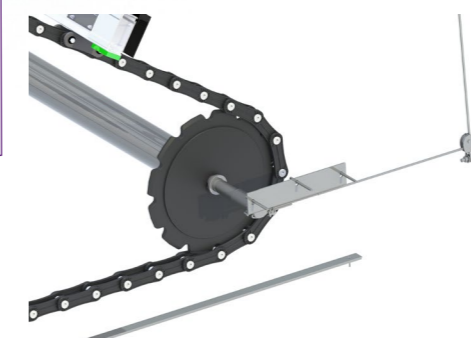
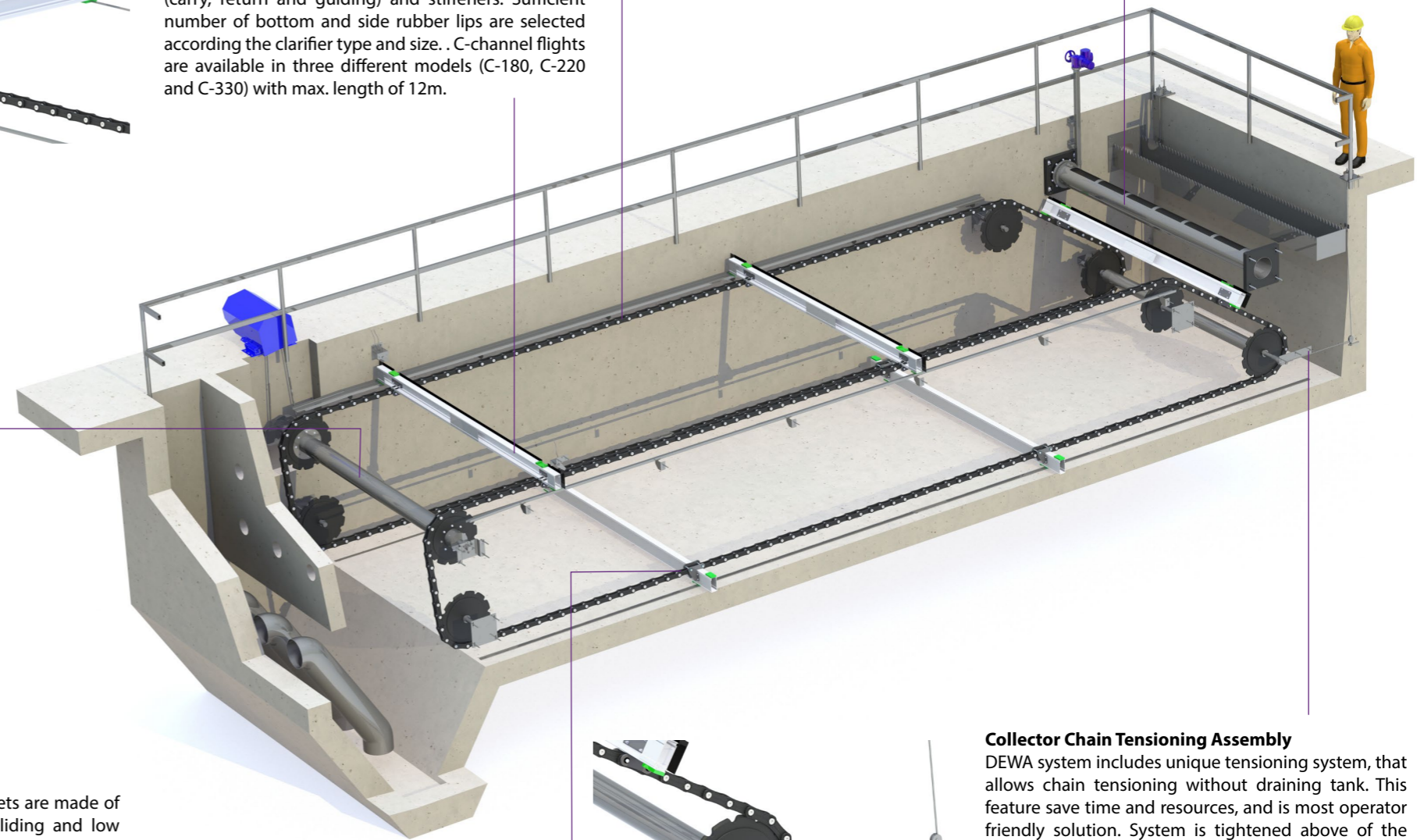
## Shaft Assembly

All shafts (head shafts, idler and stubs), collars, wall brackets are made of SS materials and designed for heavy sludge loadings. Shaft sprockets can be turned around, which double the life span of the sprockets. All bearings are lubrication free and won't require regular maintenance.



## Carry and Return Rails

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



## Collector Chain Tensioning Assembly

DEWA system includes unique tensioning system, that allows chain tensioning without draining tank. This feature save time and resources, and is most operator friendly solution. System is tightened above of the water level with simple screwing system. DEWA tensioning system prevents misalignment faults which are caused if chain gets loose. Tensioning system can be equipped with automatic tensioner and sensor indicators. These features are very convenient when sludge collector is totally under the water and it is not visible for the operator.