
Plastic chain operation.
Plastic chain operation targets all new and retrofitted scraper system drive units.
VA Teknik Sweden
Towards a cleaner world
www.vateknik.se

Plastic chain operation.

The maintenance of sludge scrapers is various depending on configuration and type. The main activities when completing maintenance of these mechanical machines are the transmission chain tensioning and greasing. The previous generations of scrapers are mostly of steel chain type configurations which need a lot of greasing, often there is oil escape which increases wearing on the steel roller chain / sprockets and contaminates the water. The wearing increases maintenance costs and the oil leakage causes a reduced efficiency of the treatment, in worst case there could be a major failure.

Advantages

With VA Tekniks replacement drive unit you can combine the best of two worlds.

Simplify maintenance and reduce the environmental impact. In many cases the sludge scrapers have been modernized below water line but without replacing the old drive units.

- No oil leakage
- Less spare parts
- Slim and efficient design frees space and increases efficiency
- Decreased power consumption
- Water lubricates the chain
- Tanks are isolated from each other (when doble-tanks)
- Plastic chain has longer lifetime
- Maintenance without disassembly of the drive shaft

Use

For clarification tanks with modern sludge scraper systems but old or defect drive units.

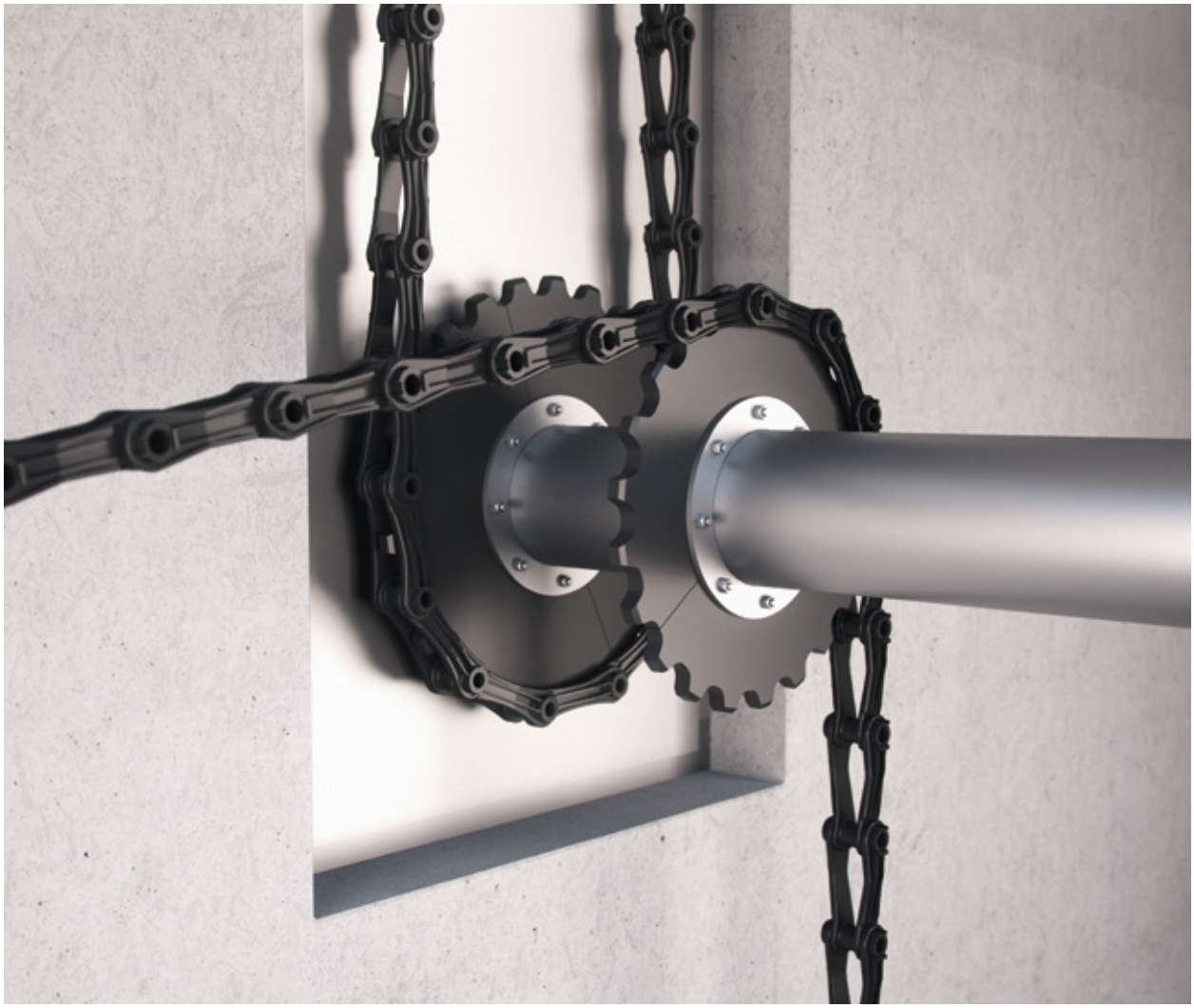
Function

Drive Unit

The motored gear is assembled on a vertically adjustable motor plate for tensioning of the power transmission chain. The transmission chain is made of acetal resin and is lubricated by the tank water. All moving parts are covered and protected by a light weight easy access aluminum hood.

Drive Shaft

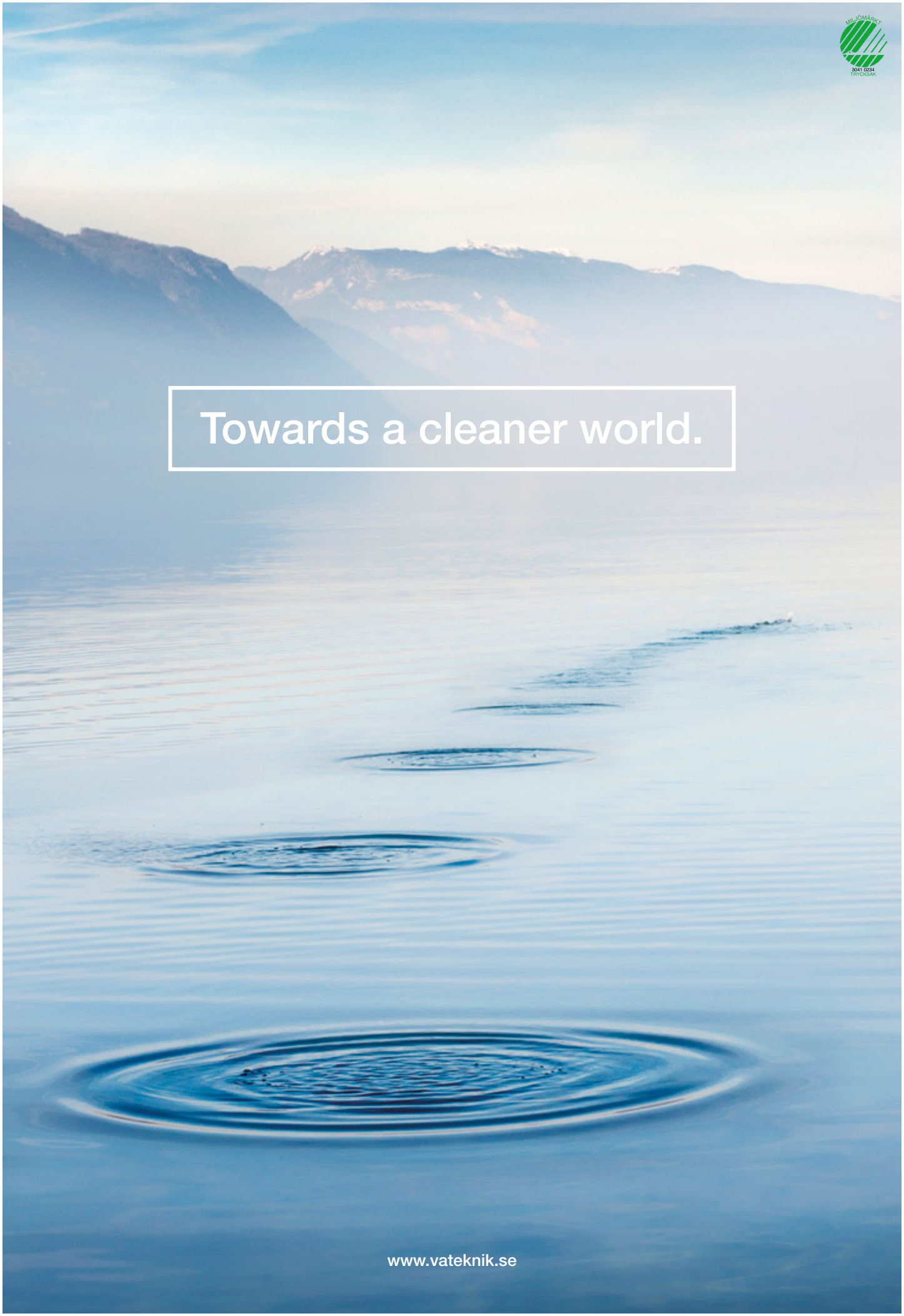
The shaft is designed as a stainless steel tube with welded flanges. Plastic split sprockets are bolted to the flanges. The split sprockets enable maintenance without disassembly of the drive shaft. The drive shaft's bearings are spherical long life heavy duty plastic bearings. The bearings are lubricated by the tank water. No additional greasing is needed.



Economy
A retrofit to plastic chain operation along with a new driveshaft means that cutting or removing the heavy driveshaft during maintenance belongs to the past. You can easily change sprockets without disassembling the driveshaft. You get rid of oil and other lubricants, you gain in increased lifetime and easy access maintenance, you make less environmental impact and you decrease your power consumption.

Specifications

Power output range	0.12-1,5 kW
Motored gear	SEW, Nord or by client demand
Driveshaft	Stainless steel configurations: AISI304, AISI316L, EN1.4547 (Super duplex)
Recess tank dividing plate	Stainless steel configurations: AISI304, AISI316L, EN1.4547 (Super duplex)
Plastic parts	Sprockets Polyethene, high density HD.
Drive Chain	NCS720 S - Acetal resin plastic NH78 – Acetal resin with 316 pin.
Tensile force	Breaking load >3100kg Average work load ~1400 kg
Size configuration	Sigma Width <8m Length <100m Diamond Width <10m Length <100m
Types	VAT YB – Surface and bottom VAT SB – Standard Bottom VAT LB – Bottom below lamellas VAT SF – Sand/Grit trap scrapers VAT DAF – Surface scrapers VAT API – API scrapers
Overload protection	Electronic Torque Guard



15-0014_ENG / June 2015 mediacad.se