

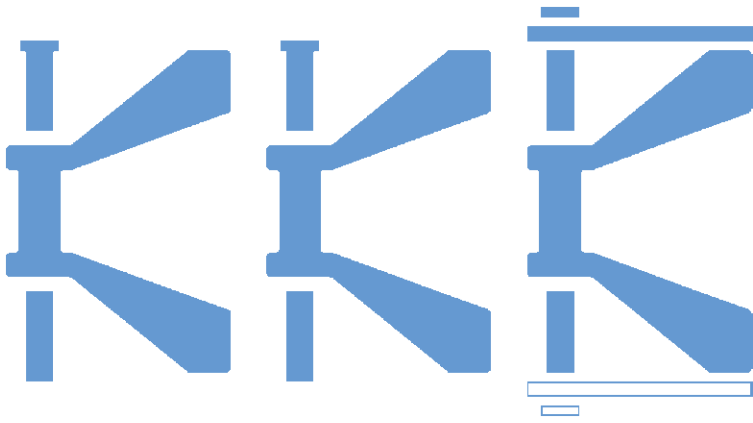
Plastic Chain Scrapers



the outstanding strong,
extremely durable and
sustainable system
to protect our environment

TSCHUDA

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Plastic Chain Scrapers

with the strongest plastic chain according to the unified US standard

with flexible jointed flight attachment links

with extremely stiff stainless steel flights



SST / FST 70,66x8,14m
in DE-Berlin Schönerlinde



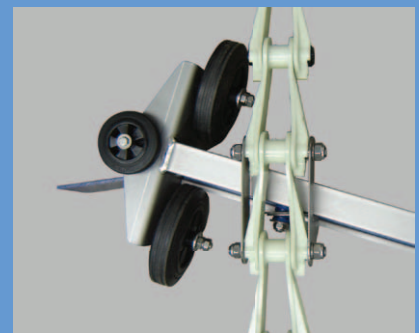
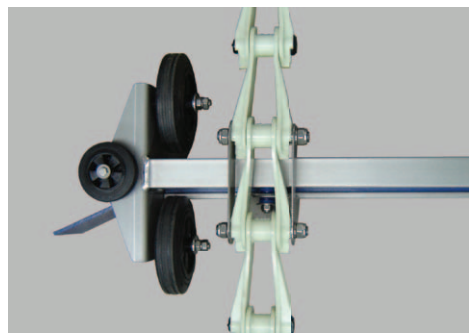
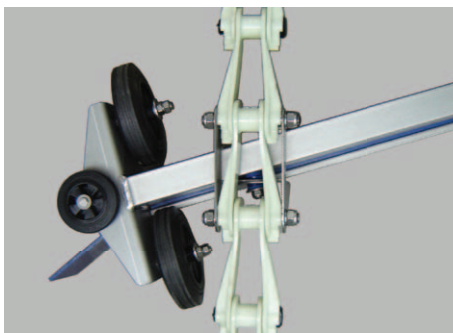
PST 40,0x9,0m
in SI-Domzale

The TSCHUDA 6" plastic chain is designed according to the most common and often used US standard NCS-720. The conveyor chain is characterised by an extremely high breaking load of the chain strand (> 50 kN) and the especially low ultimate elongation. At normal working conditions, the chain strand is therefore much less elongated and the entire scraping system is stiffer and works more precise and more reliable.

The scraper flights are attached to the chains with additional and extremely strong stainless steel reinforcements and with flexible elements in between. Even in the event of extreme flight misalignment, no additional negative forces will work on the chain strand like it is unfavourable at injection moulded chain attachment links.

A chain is only as strong as its weakest link!

The extremely rigid and torsion-resistant scraper flights are made of rectangular stainless steel hollow profiles. In wider tanks, the flights have additional tube reinforcements. In extremely wide tanks, the flight profile is then further extended beyond these stiffeners.





**SST / FST 76,2x15,1m
in DE-Trier**

with uniform conveyor sprockets and extremely robust, maintenance-free slide bearings

All conveyor sprockets have identical design with a non-integer number of teeth ($z=23/2$). The sprockets have chain saver rims with congruent shape to the chain links. These supports ensure minimal wear of the chain at the contact area of the sprockets and therefore extend the service life of the conveyor chain strands. The split design of the sprockets allows for a very easy exchange. The massively dimensioned slide bearings of the idler sprockets and the drive shafts are identical and also have split design. In combination with the special bearing materials this guarantees the lowest possible wear and years of maintenance-free operation.

with weight-balanced and exactly upright rolling scraper flights

The tight welded design of the stainless steel scraper flights provides ideal weight reduction, which significantly reduces wear on the entire system. At the same time, the closed profile prevents air pockets and also undesirable sludge movement. Depending on the width of the tank, the scraper flights are equipped with 4 or 6 carrying wheels. The flights roll exactly upright on the bottom of the tank and on the stainless steel return guide rails. The use of carrying wheels securely prevents the stick-slip phenomenon or jerking motion which would be disadvantageous for the settling process. Additional lateral wheels guide the flights precisely between the tank walls.

The energy consumption is significantly lower at rolling friction than at sliding friction!

with especially low and precisely monitored driving force

Due to the weight balanced and rolling scraper flights, the required driving forces are minimized. Even at very large sedimentation tanks, the lifetime lubricated, maintenance-free helical bevel geared motors still have sufficient power reserves despite their low power rating (0.25 kW - premium efficiency IE3). An electronic power control module is precisely synchronised with the rated motor power, measures the actual power consumption and reliably protects the entire scraping system from overload.



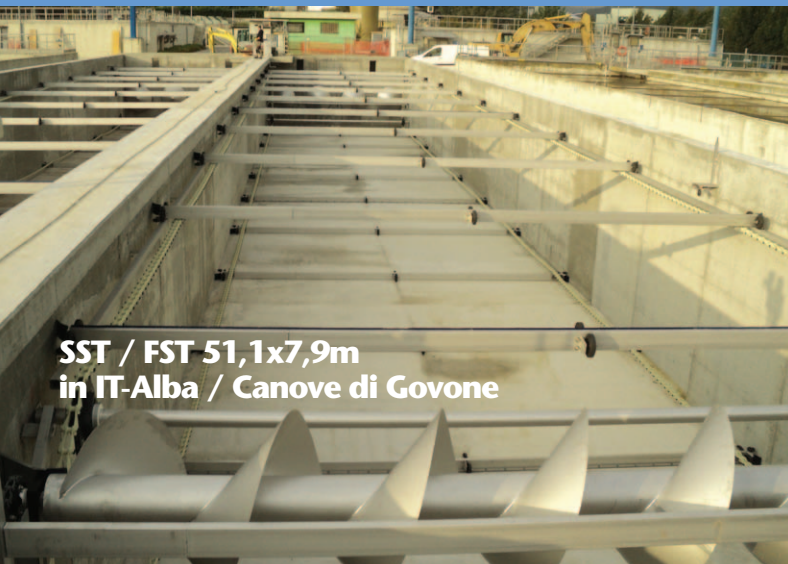
**SST / FST 79,95x7,5m
in CH-Laupen**



**SST / FST 95,0x11,7m
in AT-Salzburg**

Product highlights:

| | |
|----------------------------------|---|
| Realized so far: | Primary sedimentation tanks up to 76.35m length or 12.0m width Secondary sedimentation tanks up to 95.0m length or 15.1m width |
| Version: | Bottom and / or surface scrapers with 2, 3 or 4 shafts / axes |
| Material: | Standard - stainless steel 1.4307 / AISI 304L Option - stainless steel 1.4404 / AISI 316L or 1.4571 / AISI 316 Ti |
| Scraper flight profile: | 150 x 50mm - scraping load up to 400N/m |
| Scraper flight versions: | Standard - for tank width $\leq 6\text{m}$ - with 4 carrying wheels for tank width $> 6\text{m}$ - with 6 carrying wheels for tank width $> 8\text{m}$ - with additional tube reinforcement for tank width $> 11\text{m}$ - with extended scraper flights Option - with brushes for cleaning submerged clear water effluent pipes |
| Wheels of scraper flights: | PA rims with solid rubber tyres - $\text{\O}180\text{mm}$ and $\text{\O}100\text{mm}$ |
| Wiper strips of scraper flights: | Microbe-resistant PU |
| Drive / conveyor chain: | NH-78 / NCS-720-S |
| Drive sprockets: | UHMWPE - $z=11$ - $\text{\O}k=235.0\text{mm}$ UHMWPE - $z=23$ to 42 - $\text{\O}k=486.9\text{mm}$ to 883.7mm |
| Conveyor sprockets: | UHMWPE - $z=23/2$ - $\text{\O}k=564.8\text{mm}$ |
| Slide bearings: | UHMWPE / PA - $\text{\O}150 \times 150\text{mm}$ |
| Gear motor: | Lifetime lubricated bevel gear motor with stainless steel hollow shaft Coating for corrosivity category C4 according to DIN EN ISO 12944 0.25 kW nominal power |
| Additional safety devices: | Electronic power control unit Option - synchronic run monitoring by means of inductive sensors |



SST / FST 51,1x7,9m
in IT-Alba / Canove di Govone



PST / IST 76,35x10,0m
in DE-Köln Stammheim

The delivery program:

- ERR** Stainless Steel Circular Scrapers
- KKR** Plastic Chain Scrapers
- RRA** Anti-slip Drive Wheels
- SSR** Screw-conveyor Scum Removers

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