SYSTEM MARATHON

example train wash:
free weathering
extreme influence of media (detergents)
travel 180 m

The SYSTEM MARATHON is designed for long travel distances with a rolling-led energy chain.

The upper part of the chain runs with roller sets on a continuous flat guiding rail surface. This construction avoids completely the sliding friction between the upper and lower strand of conventional energy chains. In this movement only substantially lower rolling friction occurs.

In front of the chain radius the roller sets are lifted out of the guide rail. In the chain radius the roller sets are pivoted into the trough by means of polygonal shape and the chain is lowered in the trough.

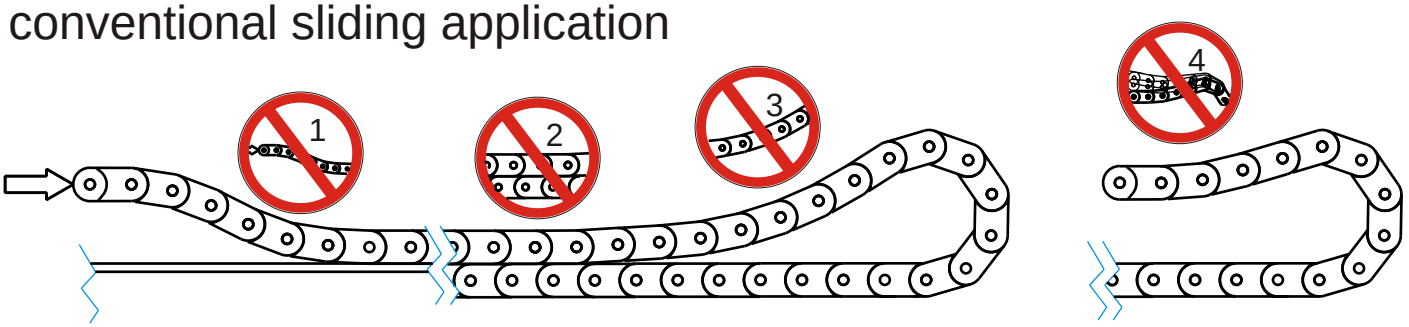
In the opposite direction of travel the roller sets behind the chain radius swirl again, embrace the guide rail and carry the upper strand centered within the trough.

Measurements for the SYSTEM MARATHON confirmed that the reduction of friction forces is up to 90%.
Increased starting torque, as with sliding applications and the overcoming of static friction after a stop will not appear with this system.
Not least of all SYSTEM MARATHON minimizes wear through the rolling friction.

Another advantage is the parallel to the chain running force of the movable driver and the straight arrangement of the upper run which totaly avoids changing bending of the lines and the energy chain. A substantially increased durability and reliability are the result.

example greenhouse:
relative humidity 80-100%
travel 150 m

conventional sliding application



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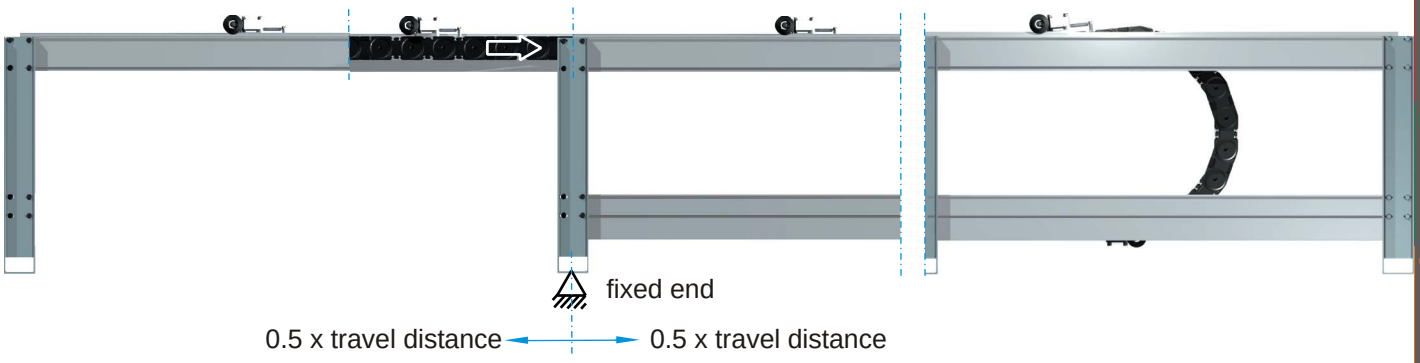


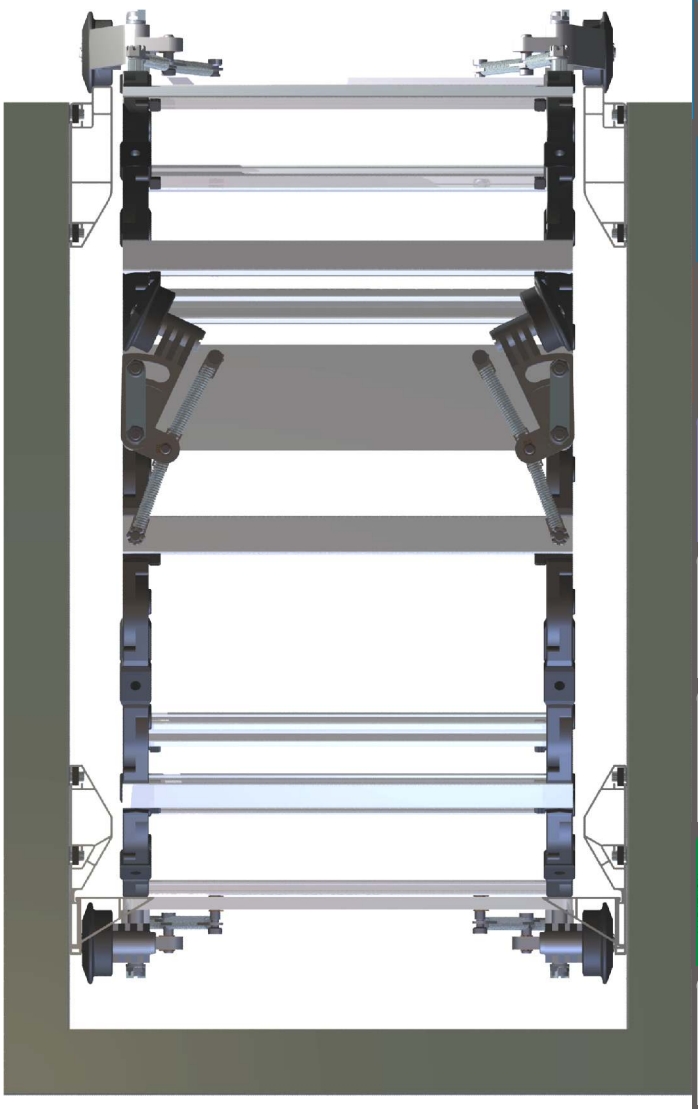
of force not in energy chain direction
high-flexing of the energy chain
repeated bending of the lines

sliding friction: high forces
high starting torque
abrasion, wear, noise

bending of the energy chain and the lines

oscillations lead to extreme loads of the energy chain

additional lengths often necessary



SYSTEM MARATHON

moving forces reduced by up to 90%
forces into the direction of Energy chain
no repeated bending
no increased starting torques
abrasion and wear-minimizing