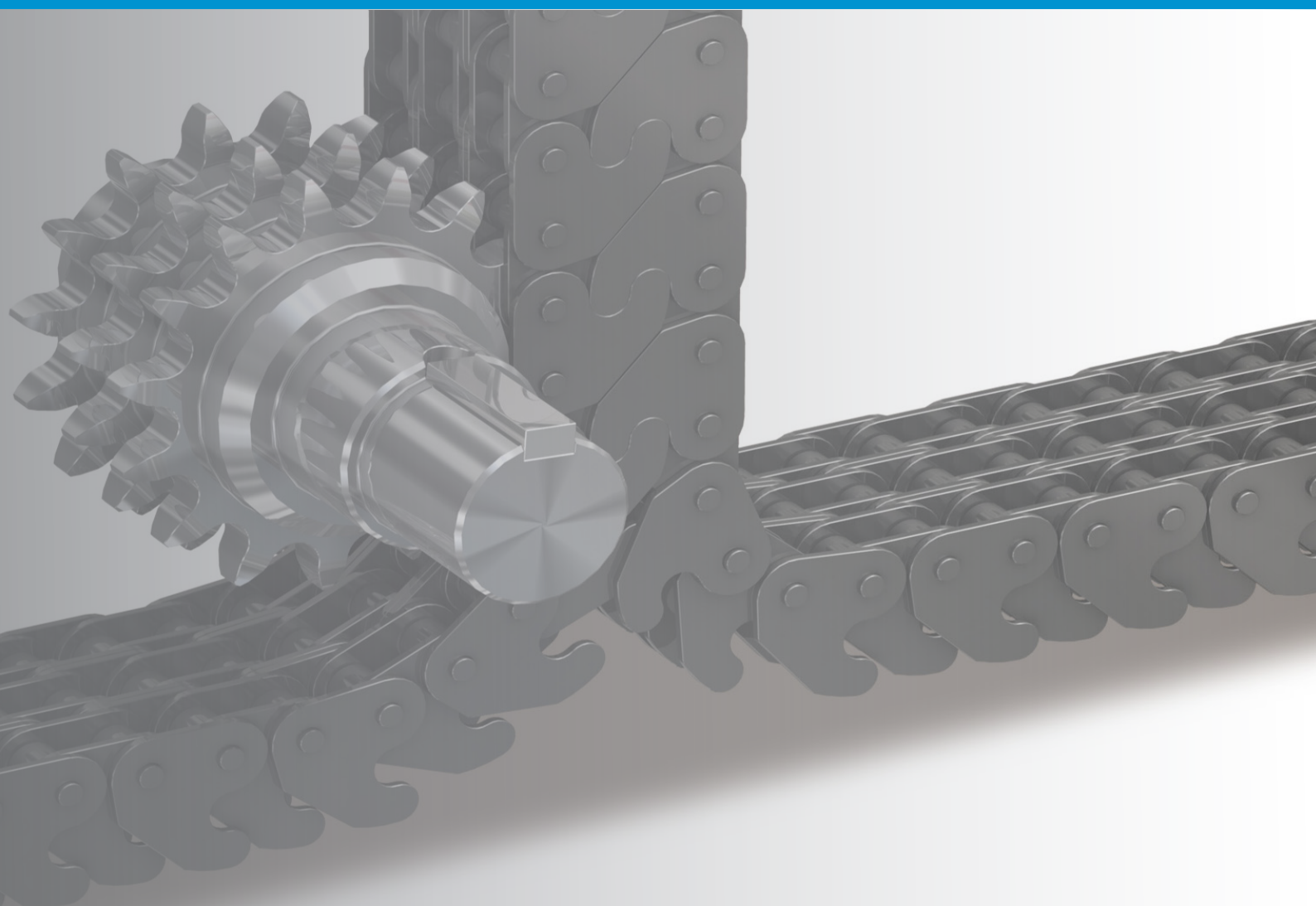


TSUBAKI ZIP CHAIN ACTUATOR[®]

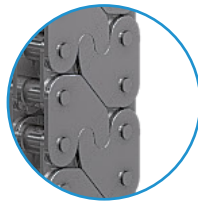


ZIP CHAIN ACTUATOR[®]

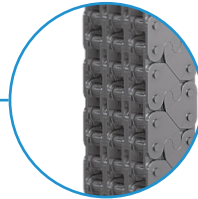
The patented Zip Chain Actuator[®] is a specialized interlocking chain for push and pull applications developed by Tsubaki. They are produced under strict quality control using the largest dedicated heat treatment furnaces in the world. This process ensures that our Zip Chain Actuators feature the best rigidity, toughness, and wear resistance for your application.

FEATURES

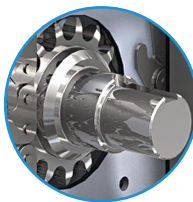
The link plates of the two chains engage precisely with the optimum engagement strength carrying up to a maximum load of 38,2 kN. By fixing each chain, it forms a single strong column without any gaps between the two chains.



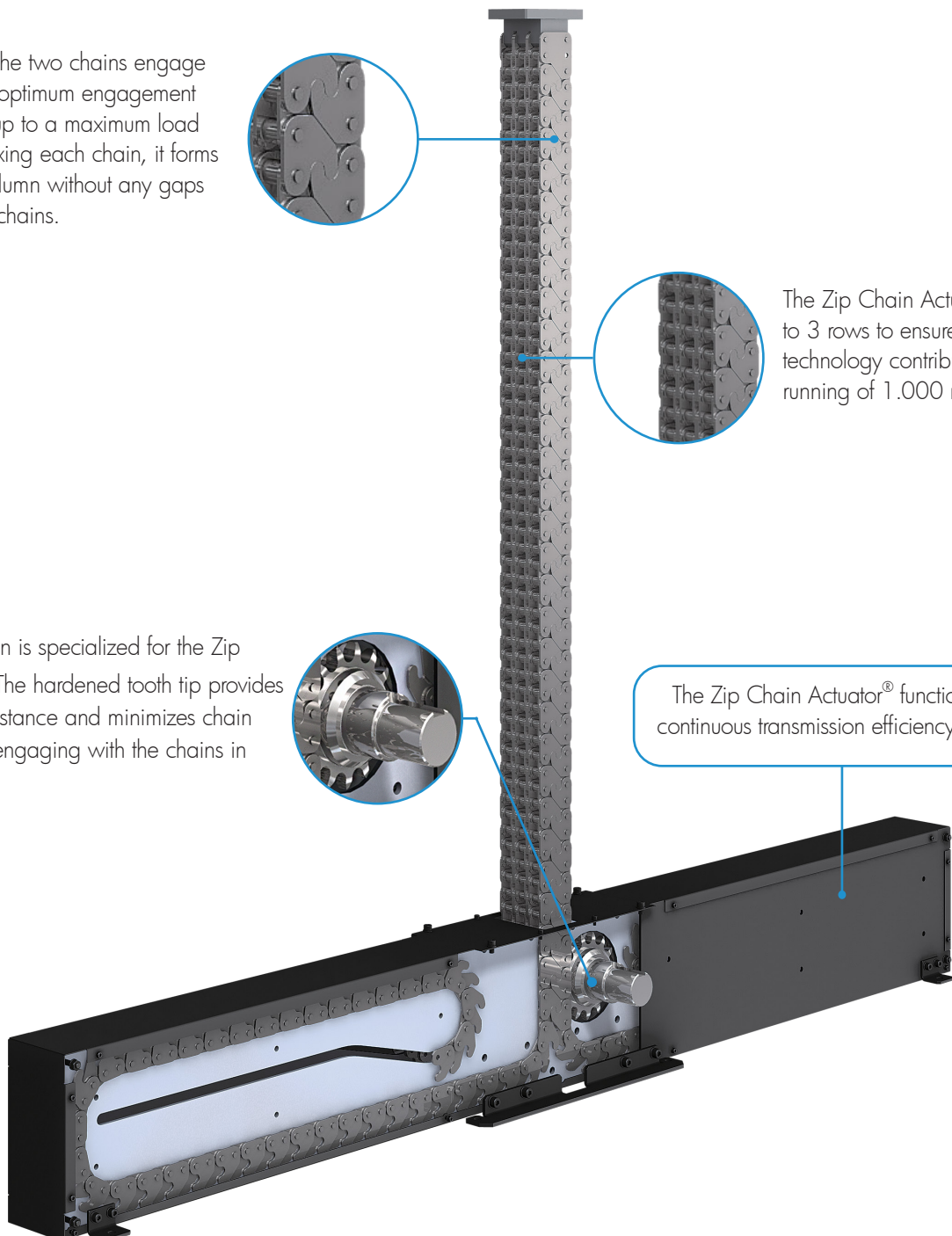
The Zip Chain Actuator[®] has up to 3 rows to ensure stability as the technology contributes high-speed running of 1.000 mm/sec.



The sprocket design is specialized for the Zip Chain Actuator[®]. The hardened tooth tip provides excellent wear resistance and minimizes chain elongation when engaging with the chains in high speed.



The Zip Chain Actuator[®] functions at a continuous transmission efficiency of 90%.



Speed/frequency

Even during high-speed operation, the chains interlock smoothly, the Zip Chain can achieve speeds up to 1.000 mm/sec. Even during high-frequency operation, heat generation is minimized, no duty factor restrictions are applied, and continuous operation is possible.

ZIP CHAIN ACTUATOR[®]

Durability

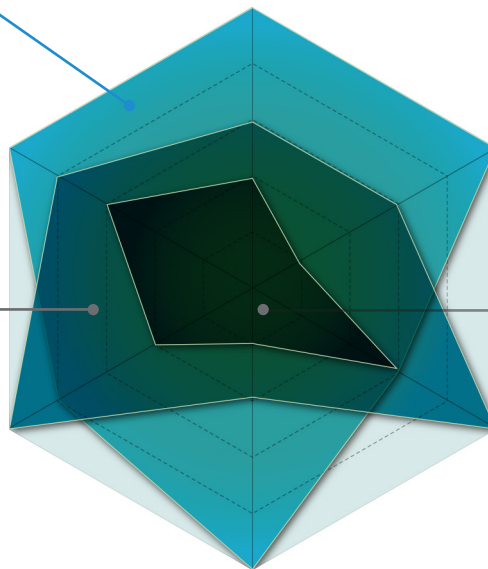
Zip Chains offer excellent wear resistance, ensuring a long service life and excellent maintainability.

Ease of use

Compact design is possible even with long strokes, making transportation and installation easy.

SCREW JACKS

HYDRAULIC/PNEUMATIC MECHANISMS



Stopping accuracy

A compressive load is constantly applied to the Zip Chain, ensuring highly precise positioning.

Low noise

Zip Chains interlock smoothly enabling low noise operation.

Compact design

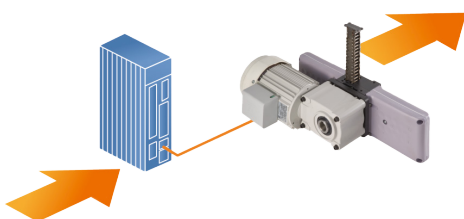
Chains are stored individually in the Zip Chain case realizing a space-saving design, whereas the conventional system requires more space proportional to the stroke length.

COMPARISON OF SYSTEM CONFIGURATION

The Zip Chain Actuator[®] is lubricated internally allowing for smooth operation and only needs an electric motor as a drive source. In contrast to hydraulic or pneumatic cylinders, there is no risk of oil/pressure leakage from the main unit or piping. This compact setup simplifies maintenance and eliminates potential hazardous situations.

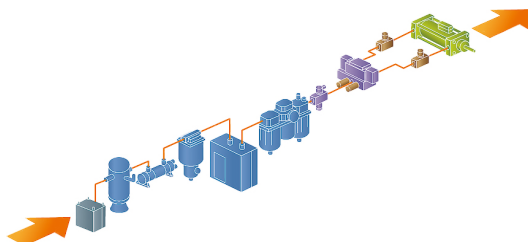
Zip Chain Actuator[®]

The compact Zip Chain Actuator[®] system only requires an electric motor to function.



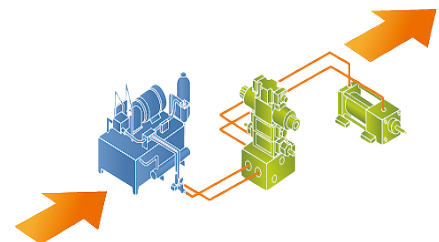
Pneumatic

Pneumatic systems require a complicated setup. Air leaks can cause inefficient operation and loss of energy.

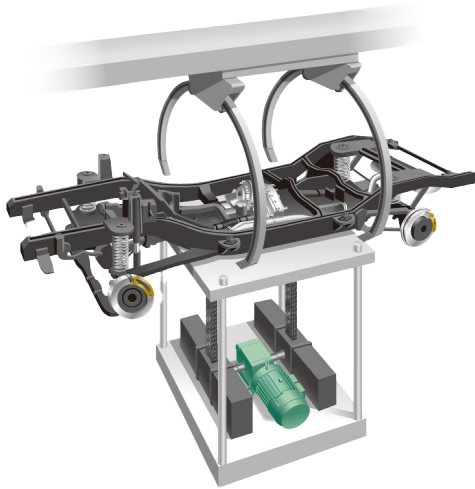
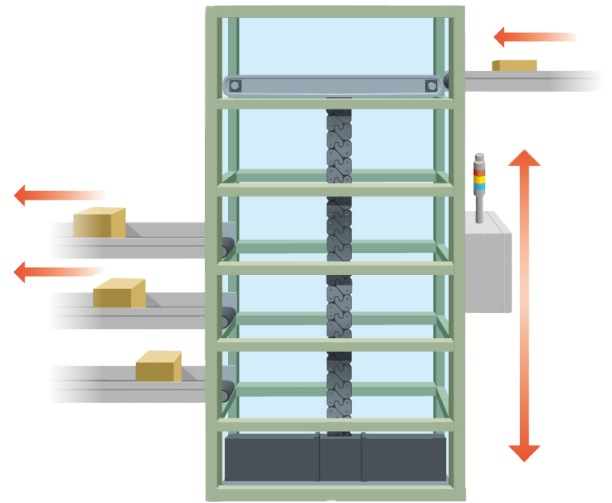


Hydraulic

Leaks in the hydraulic system can affect operation. With oil there is an additional risk of pollution and safety issues.

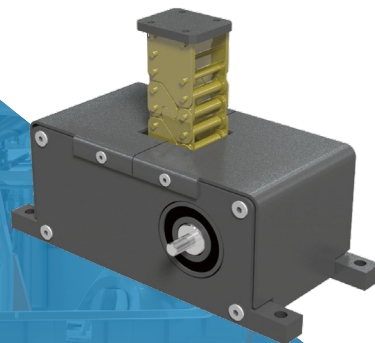


Goods transported by a conveyor can be sorted into multiple levels by high-speed lifting, realizing a reduction in vertical transport time.



The Zip Chain moves up and down with high precision and with a frequency of more than one cycle per minute.

The height of the chain case is about 1/10th of the stroke, and with its integrated drive structure, this compact unit can be installed in narrow spaces.



Zip Chain Actuator[®] Specifications

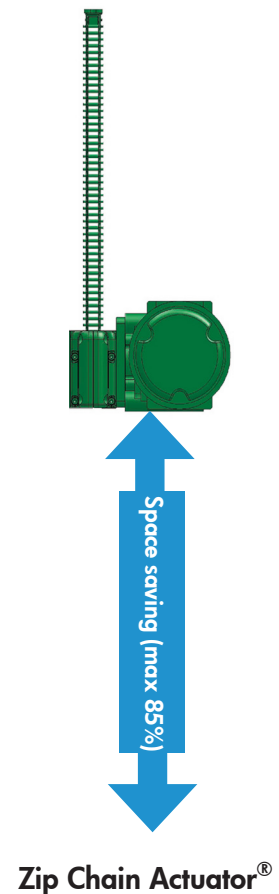
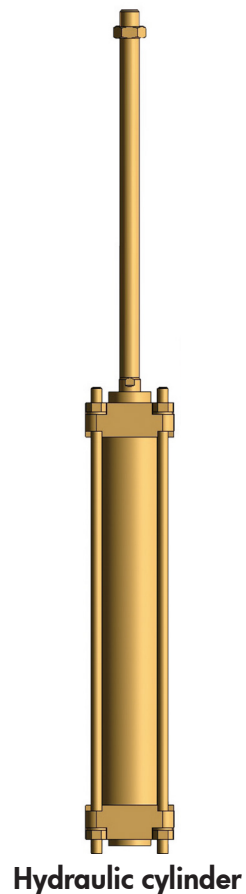
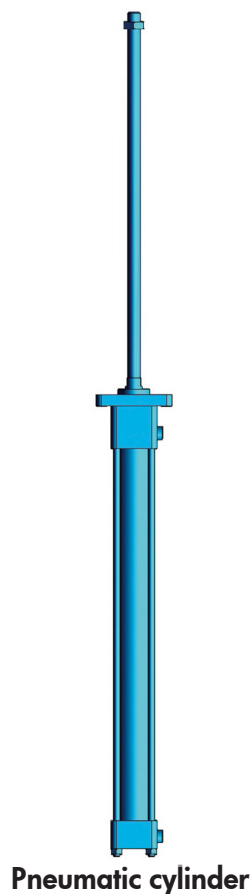
Capacity	up to 38,2 kN
Stroke	up to 5.000 mm
Max. speed	1.000 mm/sec
Accuracy	± 1 mm
Lifetime	More than 1.000.000 cycles
Duty factor	100% ED

*100% ED=Continuous operation, unlimited duty cycle



REVOLUTION IN MOTION

The ability to store Zip Chains in a compact case helps save up to 85% overall space compared to conventional linear actuators. With support for high-speed, high-frequency operation, Zip Chain Actuators consume significantly less power than hydraulic/pneumatic cylinders. Multi-point stopping is also possible with high precision every time. Installation direction is only limited by your imagination.



JAPANESE PRECISION



Located in Kansai Science City, the Kyotanabe plant embodies our wide spectrum of cutting-edge technological solutions. Our aim is to develop this environmentally friendly facility into the world's number one chain plant. Furthermore, Kyotanabe's Technical Centre plays a vital role within the Tsubaki Group through its R&D activities and distribution of knowledge. The Kyotanabe plant is an excellent example of a facility built on the foundation of Tsubaki's technical expertise.

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