

## **Tsubaki is a GT4 Winner at Austrian pulp and paper plant**

**9<sup>th</sup> April 2020**

**From the chipper to the roll, producing paper is a continuous process. For plant managers tasked with managing capital expenditure, sometimes budget components can find their way onto the production line. Drive chain is a classic example of a product that is sometimes treated as a commodity rather than an engineered component. One global manufacturer of pulp and paper products discovered that low cost chains on the line don't necessarily lead to cost savings once installed. Consequently, it turned to Tsubaki to reduce total cost of ownership (TCO) via a premium chain solution.**

A paper mill is a demanding environment for power transmission components such as drive chain. The manufacturing process inevitably involves large amounts of abrasive dust particles in the air. This dust will contaminate chain lubricant and work its way into the chain's internals, leading to corrosion and increased wear. Ultimately this will cause the chain to elongate and eventually fail completely. The continuous nature of paper production compounds these issues, as the high duty requirements causes improperly specified chains to fail faster. It also raises the stakes of chain failure. A single unexpected chain failure can bring the entire production line to a standstill.

For a major European paper manufacturer, a paper mill in Austria was suffering from regular delays caused by chain failure – specifically the drive chain installed in the paper coil elevator. The heavy coils of paper at the site are moved by 10 elevators

to different floors of the facility, ready to be cut and processed. Chains from three different brands were being utilised across the elevators, none of which were robust enough to offer long service life. The use of three different chain types resulted in inconsistent wear, resulting in the chains becoming uneven. In addition to the general atmospheric challenges of the application area, the chains installed on the elevators were regularly subjected to very high shock loads – which was causing the plates of the chain to crack.

While offering a reduced cost at initial purchase, budget chain struggles to meet application requirements long term. Premature failure leads to plant downtime, which risks order schedules. Maintenance intervals are also shortened, increasing the frequency of repairs. As a result, despite offering an initially cheap solution, the TCO of an inferior chain during its lifetime is greatly increased compared to a premium chain.

Realising this, the manufacturer approached Tsubaki to provide an improved chain solution. Offering over a century of experience in designing and manufacturing high performance chain, Tsubaki is a key supplier of power transmission components to the paper industry, as well as the agriculture, automotive, metals, mining, food and beverage sectors. A century of success is underpinned by a responsive service and a global engineering capability, which ensured that Tsubaki engineers were quickly on-site at the Austrian plant to carry out a thorough inspection.

After assessing the 10 elevators, Tsubaki identified its GT4 Winner chain as a suitable solution. Designed to provide strength in high wear environments, the chain boasts four key features which are designed to reduce wear and minimise chain elongation:

1: Lube-grooved (LG) bushes hold oil at the point of contact which provides an internal reservoir for lubricant where the chain needs it most (sizes RS16B – RS24B).

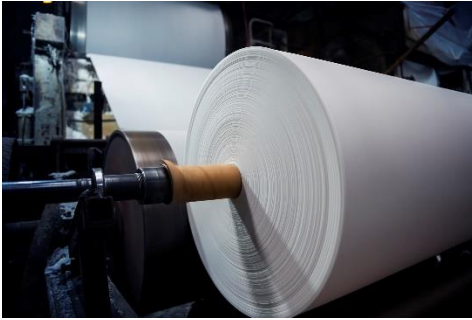
2: Seamless and perfectly cylindrical bushes result in both better contact between the pin and bush and improved lubricant retention.

3: Centre sink rivets – for easy disassembly – which are designed with markings to identify pin rotations caused by chain overloading (sizes RS08B – RS16B).

4: Ring Coined connection links allow the chain to be specified up to its full kW rating; unlike the typical standard slip-fit connecting links used by competitors which are usually much weaker than the base chain.

The GT4 Winner was trialled on a single elevator at the Austrian facility to gauge performance and potential benefits. Increased strength ensured that the premium Tsubaki chain could withstand the shock loads inherent to the application comfortably, eliminating the issue of cracked plates. This also minimised elongation and minimised likelihood of premature failure, which consequently reduced maintenance requirements. Longer service life, a decreased risk to uptime and reduced maintenance translated to a greatly improved TCO compared to the previous chains. The successful test period led to the GT4 Winner being installed on all 10 of the paper coil elevators.

**Image captions:**



**Image 1:** One global manufacturer of pulp and paper products turned to Tsubaki to reduce total cost of ownership (TCO) via a premium chain solution.

**Image 2:** Tsubaki identified its GT4 Winner chain as a suitable solution for the paper mill's demanding environment.

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

## About Tsubaki

Established in 1917, Tsubakimoto Chain Company is the world's premier manufacturer of power transmission products with strong market positions in premium quality industrial drive & conveyor chains and associated power transmission components such as cam clutches, reducers & linear actuators. With a turnover exceeding \$1,5 Billion US Dollars & 6,500 employees, the Tsubaki group includes 41 manufacturing locations and 81 group companies worldwide. Our production and sales networks are now more developed than ever.

Tsubakimoto Europe B.V. serves Power Transmission customers in the Pan-European market, Africa and the Middle East from European headquarters located in Dordrecht, the Netherlands, along with a local subsidiary based in Nottingham, serving the UK market & Ireland and from the office in Ismaning, Germany customers in Germany, Austria and Switzerland are served. Customers in Spain and Portugal are served by our office in Madrid, Spain.

### **Press contact:**

**Tsubaki EU**

**Richard Poldervaart**

Tel: +31 (0)78 6204000 Fax:

Web: [tsubaki.eu](http://tsubaki.eu)

Email: [richard.poldervaart@tsubaki.eu](mailto:richard.poldervaart@tsubaki.eu)

Address: Tsubakimoto Europe B.V, Aventuijn 1200,  
3316 LB Dordrecht, The Netherlands

### **Editorial contact:**

**DMA Europa Ltd.**

**Stephanie Jones**

Tel: +44 (0)1905 917477 Fax

Web: [www.dmaeuropagroup.com](http://www.dmaeuropagroup.com)

Email: [stephanie@dmaeuropa.com](mailto:stephanie@dmaeuropa.com)

Address: Progress House, Great Western Avenue,  
Worcester, Worcestershire, WR5 1AQ, UK