Power and Performance for Waste Incineration Plants
You’ll find a variety of Tsubaki products at work in the non-industrial waste (trash) treatment process. From initial receipt of burnable and non-burnable bulky trash to ash conveyance and slagging, Tsubaki uses its know-how, quality, and engineering accumulated since its founding in 1917 to provide perfect solutions and products for specific applications. Tsubaki is committed to the environment and recycling.
You’ll find Tsubaki being used throughout waste incineration plants, from initial receipt of burnable and non-burnable bulky trash to ash conveyance and slagging. We use the know-how, quality, and engineering accumulated since our founding in 1917 to provide our customers with perfect solutions and products for their lines and equipment. Tsubaki is committed to the environment and recycling.
A solid lubricant has been bonded between the pins and bushes, and an O-ring has been fitted between links. **Merits**

The solid lubricant minimizes chain (pitch) elongation, while the O-rings help prevent conveyed material from infiltrating between pins and bushes and prevent the solid lubricant from escaping. This allows FB Series to achieve double the chain life.

**Bearing Roller Effects**

- Reduces chain load and required kW
- Prevents stick-slipping on long conveyors at low speed operation
- Suppresses poor roller rotation and decreases rail wear
- Improved dust resistant capabilities

**Bearing Roller Functions**

- Reduces chain running resistance (1/3 that of standard conveyor chain)
- Greatly increases roller allowable load
- 1.
- 2.
- 3.
- 4.

**Conveyor Chains for Receiving and Feeding**

This conveyor chain has been specially designed for the initial conveyors that convey collected trash. They are designed to withstand the wear caused by the different kinds of trash as well as against the impacts of loading.
Bearing Roller Conveyor Chain

Bearing Roller Conveyor Chain features a unique construction of cylindrical bearings inside the roller. Tsubaki offers dust resistant, water resistant, and lube-free series as well.

Merits
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FB Series Conveyor Chain

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Large Conveyor Chain Sprockets - Split Sprockets

For areas where attaching or removing sprockets is difficult due to equipment layout, we offer a sprocket that can be replaced without having to remove bearing parts around the shaft. This can help reduce maintenance times and costs.

Sprocket and Shaft Delivery Service

Let Tsubaki handle troublesome shaft finishing and sprocket phase alignment for you with our sprocket and shaft set delivery service.
The Tsubaki T Series Power Cylinder is a strong thrust type Power Cylinder that can be used with AC (alternating current) power. We offer a complete line-up to match any application, thrust, or speed needs.
Thrust force: 2.45 – 313kN (250 – 32000kgf)  Max. stroke: 2000mm
All Power Cylinders use a brake motor to provide reliable load support for safe operation. Heat resistant brake motors and for high temperature applications are also available.

Cam Clutch B engages when the main motor drives the fan, while Cam Clutch A idles. The opposite occurs when the steam turbine drives the fan using surplus steam.

The Cam Clutch is housed in a protective casing for continuous high speed idling operation.
For continuous high speed idling operation. Also ideal for energy saving fans and energy recovery pumps.
**Bottom ash (dry/wet) conveyor chain**

This conveyor chain is specially designed for bottom ash conveyors and helps prevent problems with articulation, roller rotation, and wear problems stemming from bottom ash. Wet type chains (where the chain conveys bottom ash that has been dropped into water for cooling) also feature increased corrosion resistance.

**Fly ash (normal and corrosive) conveyor chain**

This conveyor chain is specially designed for conveying fine, highly abrasion ash (fly ash) generated in the boiler or collected by dust collectors, and helps prevent problems with articulation, roller rotation, and wear stemming from fly ash. Features increased resistance to corrosion from additives ash as well.

**Slag conveyor chain**

This conveyor chain is specially designed for conveying waste and ash that have been fused and solidified into slag. Features wear resistance to molten slag and corrosion resistance to changes in water quality (pH).
Other Products for the Waste Treatment Industry

**Shock Relay**
- Shock Monitor®
- Roller Chain Coupling
  - A flexible coupling with two strands of solid roller chains manufactured especially for couplings wrapped around two sprockets. Can be used on conveyors and a variety of drives.
  - **Features**
    1. Wide line-up
    - Transmission torque: 100N・m to 717kN・m
    - Bore diameter range: 9.5mm - 700mm
    2. Excellent durability
    3. Can be easily connected and disconnected

Tsubaki also offers various other couplings — let us recommend the perfect coupling for your needs.

Stainless steel and surface treated drive chains offer greater corrosion resistance than general use drive chains.

**Corrosion Resistant Drive Chains**

**AS Series**
- Stainless steel chain with 1.5x the allowable load of SS Series

**SS Series**
- Basic stainless steel chain (SUS304 equivalent)

**NS Series**
- Stainless steel chain with superior corrosion resistance to SS Series

**LSC Series**
- A lube-free, long life stainless steel chain with a special engineering plastic sleeve insert.

**Neptune™ Series**
- A specially surface treated RS Roller Chain. This eco-friendly highly corrosion resistant chain uses no harmful chromium.

*Tube groove solid bushes are only available for RS80 to RS140.*
**Shock Relay®, Shock Monitor®**

Quickly detects overcurrents during overloads, preventing damage to the equipment.

**Merits**
Can be housed in controls panels – eliminates worries of fly ash causing poor operation.

**Roller Chain Coupling**

A flexible coupling with two strands of solid roller chains manufactured especially for couplings wrapped around two sprockets. Can be used on conveyors and a variety of drives.

**Features**
1. Wide line-up
   - Transmission torque: 100N・m to 717kN・m
   - Bore diameter range: 9.5mm – 700mm
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3. Can be easily connected and disconnected
   - Tsubaki also offers various other couplings – let us recommend the perfect coupling for your needs.

**Steel Cableveyor®**

Strong and tough, steel Cableveyors offer excellent durability. Exemplified by the TK Series, we process the supporter holes to match the diameters of your cables to provide top of the line cable guidance and protection. Stainless steel, rotating arrangements, and other made to order models available.

- **TK Series**
- **TKF Series**
- **TKS Series**

Cableveyor® is a registered trademark of Tsubakimoto Chain Co.
The Tsubaki NFV Flightveyor can transport general powder and grain, hard to convey material, and highly adhesive material with no problem. With its wide variety of layouts, and its tough yet easy to use features, the Flightveyor is finding use in more applications than ever.

**Principle of conveyance**
Two strands of chain with flights attached run inside a sealed case in the horizontal area, while a bucket elevator operates vertical area, to reliably convey goods.
Other Products for the Waste Treatment Industry

- The conveying cross-section is small, and conveyed material is fed and discharged in the horizontal part, allowing for extremely compact equipment (even indoors) and easy installation.
- Feed and discharge ports can be installed in several locations along the horizontal part.
- A conveyor chain is an integral part of a conveyor. It runs in a tightly sealed case and uses flight attachments to convey material, which puts a lot of responsibility on the chain. Tsubaki uses its long history of success to provide the ideal chain for Flightveyors.
- Easy-open windows are installed at strategic spots, and each case is able to be split, to make inspection and maintenance a snap.
- The entire conveyor is tightly sealed, so there is no damage from flying material or messes from escaping dust. It can be installed as-is outside as well.

1. Allows for freedom of layout
2. Compact and economical
3. Flexibility in feed and discharge
4. Uses the ideal conveyor chain
5. Inspection and maintenance are a snap
6. Protects against dust and water
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