POWER CYLINDER PRODUCTS
CLEAN AND EFFICIENT REPLACEMENT FOR PNEUMATIC & HYDRAULIC CYLINDERS
SERIES LINE-UP

Linispeed Jack
SJ (High-speed ball screw)

Linipower Jack
JWB (Ball screw)
JWH (High-lead ball screw)
JWM (Trapezoidal screw)

DIFFERENCE BETWEEN POWER CYLINDER AND LINIPOWER/SPEED JACK

**Power Cylinder**
- With motor
- Outdoor specifications (except for some models)
- To push or pull up a load

**Linispeed Jack/ Linipower Jack**
- Indoor specifications
- To hold a load

## POWER CYLINDER

<table>
<thead>
<tr>
<th>Series</th>
<th>U Series</th>
<th>T Series</th>
<th>Multi Series</th>
<th>Worm Series</th>
<th>G Series</th>
<th>F Series</th>
<th>Mini Series</th>
<th>Eco Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Thrust (N)</td>
<td>58.8k - 313k</td>
<td>2.45k - 39.2k</td>
<td>4.9k - 313k</td>
<td>49k - 490k</td>
<td>700 - 3.0k</td>
<td>100 - 6.0k</td>
<td>98.0 - 329N</td>
<td>150 - 15.0k</td>
</tr>
<tr>
<td>Speed (mm/s)</td>
<td>6.5 - 52</td>
<td>9 - 120</td>
<td>- 240</td>
<td>10 - 14.4</td>
<td>25 - 240</td>
<td>8 - 54</td>
<td>9 - 42</td>
<td>- 333</td>
</tr>
<tr>
<td>Stroke (mm)</td>
<td>500 - 2000</td>
<td>200 - 1500</td>
<td>200 - 2000</td>
<td>200 - 2000</td>
<td>100 -1200</td>
<td>50 - 600</td>
<td>100 - 300</td>
<td>50 - 1000</td>
</tr>
</tbody>
</table>

## LINISPEED/ LINIPOWER JACK

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<tr>
<th>Series</th>
<th>SJ (High-speed ball screw)</th>
<th>JWB (Ball screw)</th>
<th>JWH (High-lead ball screw)</th>
<th>JWM (Trapezoidal screw)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Thrust (N)</td>
<td>30k - 50k</td>
<td>4.9k -980k</td>
<td>4.9k - 196k</td>
<td>1.96k - 980k</td>
</tr>
<tr>
<td>Speed (mm/s)</td>
<td>-200</td>
<td>Slow - High</td>
<td>High</td>
<td>Slow - High</td>
</tr>
<tr>
<td>Stroke (mm)</td>
<td>100 - 1150</td>
<td>- 2000</td>
<td>- 2000</td>
<td>- 2000</td>
</tr>
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</table>
Tsubaki Power Cylinders hit the mark every time. These electric cylinders operate with just simple wiring and have several advantages over hydraulic or pneumatic actuators. First, without extra parts like pneumatic or hydraulic piping, maintenance is a snap, saving time and money. Plus Tsubaki power cylinders are designed for safe and clean operation. Various built-in overload devices give users peace of mind, and a leak-proof casing prevents oil spills.

**COST SAVINGS**

- Simple Installation
- Easy Maintenance
- Clean Operation
- Energy Savings
- Maximum Control
- Safe Operation

**CO₂ Comparison**

<table>
<thead>
<tr>
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<th>Power cylinder</th>
<th>Pneumatic cylinder</th>
<th>Hydraulic cylinder</th>
</tr>
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<tbody>
<tr>
<td>In Operation</td>
<td>1.0</td>
<td>4.6</td>
<td>3.8</td>
</tr>
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</table>

**Electrical Comparison**

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<tbody>
<tr>
<td>In Operation</td>
<td>1.0</td>
<td>6.4</td>
<td>5.4</td>
</tr>
</tbody>
</table>

**Emissions Consumption Comparison**

- **CO₂ Emission (kg CO₂/year)**
  - **In Operation**
    - Power cylinder: 91
    - Pneumatic cylinder: 584
    - Hydraulic cylinder: 493
  - **In Production**
    - Power cylinder: 42
    - Pneumatic cylinder: 33
    - Hydraulic cylinder: 13

**Comparison Condition**

Thrust: 3kN, speed: 200 mm/s, Stroke 500 mm 1 reciprocating/min x 12 Hrs. x 250 days Including all drive unit, such as drive motor, hydraulic pump or compressor
Tsubaki has extensive made-to-order capabilities and can design a solution to fit any application you might have. With 50+ years of experience building power cylinders, gear motors and gear reducers, Tsubaki brings a wealth of knowledge to the industry, towering over competitors who only make actuators.
**SIMPLE INSTALLATION**

1. Hydraulic/Pneumatic cylinders require an entire pressurized fluid system.

2. Power Cylinders only require electrical wiring. No need for compressor, piping or valves.

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**MAXIMUM CONTROL**

1. Hydraulic/Pneumatic Cylinders require position sensors and a physical stopper to have intermediate positioning.

2. Power Cylinders can have built-in encoders that can be incorporated into a control system to provide accurate multi-point stopping positions.

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**SAFE OPERATION**

1. Hydraulic/Pneumatic cylinders require a constant pressure source to hold a load, and pipe leaks can cause a gradual retraction of the load.

2. Power Cylinders are supplied with brake motors that allow the cylinder to hold a load in position with no power required.

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**CLEAN OPERATION**

Leak-proof casing prevents oil leaks and spray.

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**EASY MAINTENANCE**

Long life cycles of critical components allows for less maintenance.
MORE INNOVATIVE SOLUTIONS FROM TSUBAKI

SEALED JOINT CHAIN OPTIONS

BACKSTOPS & OVERRUNNING CLUTCHES

STEEL CABLE CARRIERS

CONTINUOUS-FLEX CABLES

SMART TOOTH® SPROCKETS

TITAN® SERIES CHAINS

EXCELLENCE THROUGH INNOVATION SINCE 1917

For over 100 years, Tsubaki has developed and manufactured the highest-quality products for power transmission and motion control. With a vast network of global production facilities, R&D resources and sales offices, Tsubaki remains committed to providing innovative solutions to customers’ problems for the next 100 years.

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