

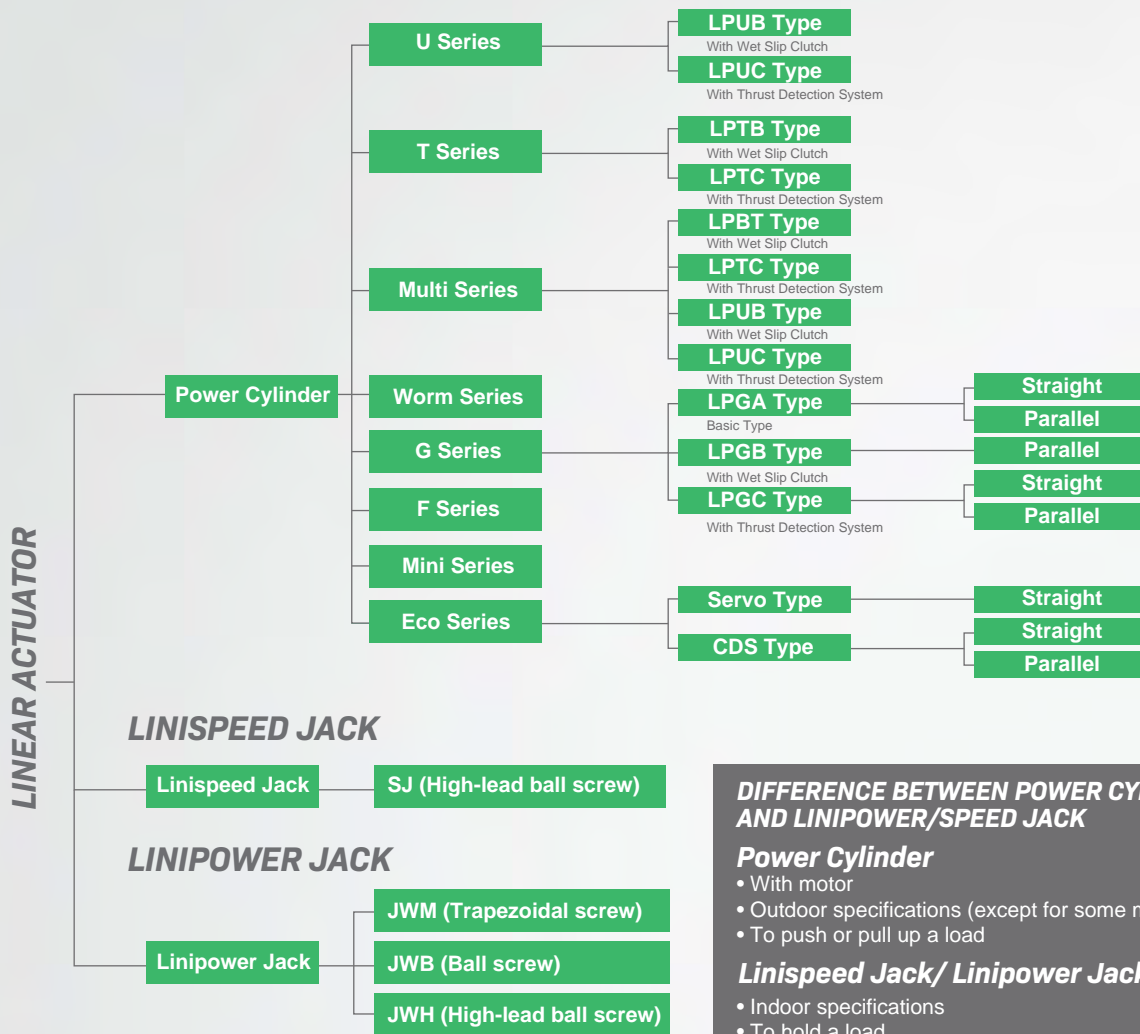


POWER CYLINDER PRODUCTS

***CLEAN AND EFFICIENT
REPLACEMENT FOR PNEUMATIC
& HYDRAULIC CYLINDERS***



SERIES LINE-UP



POWER CYLINDER

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

LINISPEED/ LINIPOWER JACK

Series	SJ (High-speed ball screw)	JWB (Ball screw)	JWH (High-lead ball screw)	JWM (Trapezoidal screw)
Rated Thrust (N)	30k - 50k	4.9k - 980k	4.9k - 196k	1.96k - 980k
Speed (mm/s)	-200	Slow - High	High	Slow - High
Stroke (mm)	100 - 1150	- 2000	- 2000	- 2000

TSUBAKI POWER CYLINDER SOLUTIONS

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

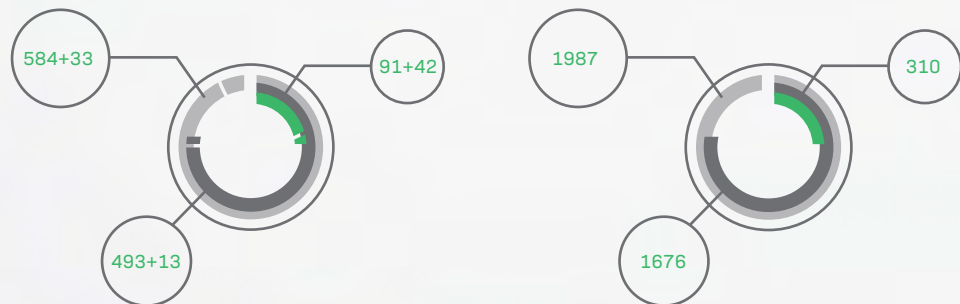
Power cylinder :	1.0
Pneumatic cylinder:	4.6
Hydraulic cylinder:	3.8

Electrical Comparison

Power cylinder :	1.0
Pneumatic cylinder:	6.4
Hydraulic cylinder:	5.4

- Pneumatic cylinder
- Hydraulic cylinder
- Power Cylinder

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

COMMON APPLICATIONS



**HOPPER
GATE**

**FURNACE
GATE**

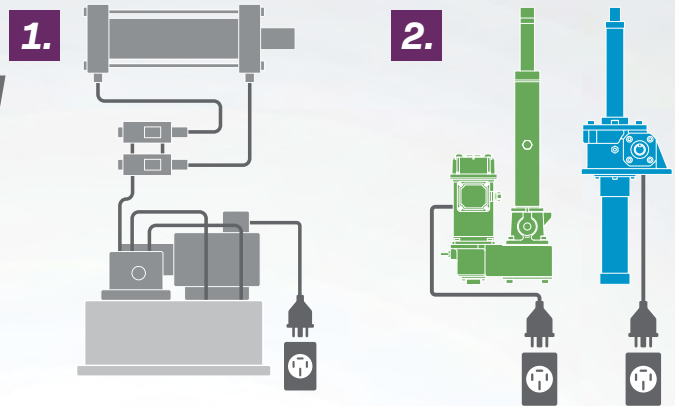


OFFERING CUSTOMIZED SOLUTIONS

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.

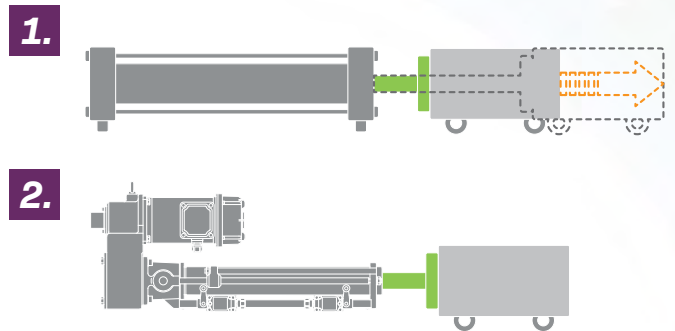
SIMPLE INSTALLATION

1. Hydraulic/Pneumatic cylinders require an entire pressurized fluid system.
2. Power Cylinders only requires electrical wiring. No need for compressor, piping or valves.



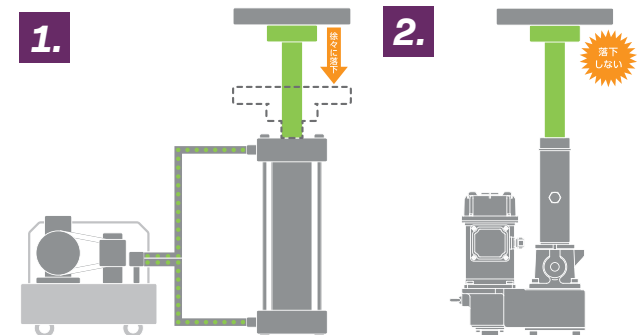
MAXIMUM CONTROL

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.



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.



Item	Tsubaki Power Cylinder	Hydraulic/Pneumatic Cylinder
Intermediate Stop	<input type="radio"/> Easy Control, Optional Positioning Options	<input type="checkbox"/> Requires position sensors and a physical stopper
Load Holding	<input type="radio"/> Simple load holding with motor brake	<input type="checkbox"/> Requires continuous compressor operation
System Configuration	<input type="radio"/> Requires only simple wiring	<input type="checkbox"/> Requires piping, valves and regulators

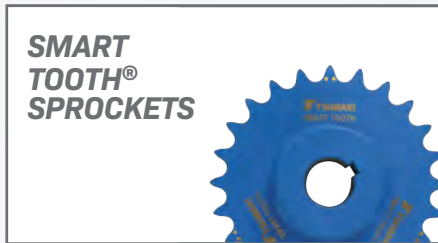
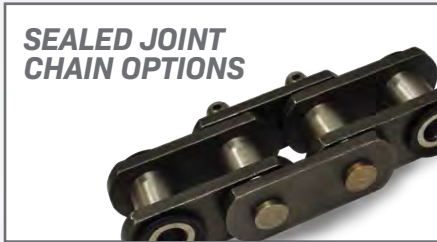
CLEAN OPERATION

Leak-proof casing prevents oil leaks and spray.

EASY MAINTENANCE

Long life cycles of critical components allows for less maintenance.

MORE INNOVATIVE SOLUTIONS FROM TSUBAKI



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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