TSUBAKI E&M CO.
SHOCK DAMPER J series

TYPE
DP-J08C06L-C, DP-J08C06M-C, DP-J08C06H-C
DP-J10C08L-C, DP-J10C08M-C, DP-J10C08H-C
DP-J12C10L-C, DP-J12C10M-C, DP-J12C10H-C
DP-J14C12L-C, DP-J14C12M-C, DP-J14C12H-C
DP-J14A10-C

MADE IN TAIWAN

- Thank you for choosing a Tsubaki E&M products. To ensure you obtain optimum performance from your products, you must read and understand the instructions and safety precautions contained in this manual.
- Refer to the catalog for the each model's specication, dimensions and options.

Shock Damper J Series Manual
Safety Precautions

- **To ensure you obtain optimum performance from your product, it is necessary to read and understand the instructions and safety precautions contained in this manual.**
- **This manual should remain with the product at all times, including when redistributed.**
- **Make sure this manual is available to every person who operates the product.**

<Safety Precautions>
Safety precautions in this manual are classified into two categories: "WARNING" and "CAUTION". They are described as follows:

⚠ WARNING	**Death or serious injury may result from misusing the product without following the directions noted with this label.**
⚠ CAUTION	**Minor or moderate injury as well as damage to the product may result from misusing the product without following the directions noted with this label.**

Note: Failure to heed information labeled "CAUTION" may, depending on the situation, lead to serious accidents.

⚠ WARNING

- **To ensure a safe work environment when installing, removing, maintaining or inspecting the Shock Damper, fix the collision object so that it does not move suddenly.**
- **Comply with the ordinance on Labor Safety and Hygiene 2-1-1 general standards.**
- **When installing, removing, maintaining or inspecting the Shock Damper:**

***Work based on the manual.**
***Make sure the power is switched off, and the machine on which the Shock Damper is being used has stopped completely before carrying out maintenance and inspection. Take measures to ensure that the power is not turned back on.**
***Wear proper work clothes and protective equipment (safety devices, gloves, shoes, etc.). Make sure to use an appropriate environment when performing maintenance to avoid an accident.**

⚠ CAUTION

- **Make sure to support the collision object with something other than the Shock Damper (stopper, etc.)**
- **Calibrate the absorbed energy when the Shock Damper is stopped.**
- **The mounting base should have enough strength to endure the maximum resistance of the Shock Damper.**
- **Function and performance may decrease due to the wear and life of parts. Inspect periodically using the manual. If you notice a decrease in function and performance, consult the distributor.**

The manual is attached the Shock Damper. Before using the Shock Damper, read the instruction manual carefully in order to use the Shock Damper properly. In case the instruction manual is not available, request one from the distributor where you purchased the product, or our sales office, with the product name, series and model number.

- **Deliver this instruction manual to the final customer who uses the Shock Damper.**

Warranty:

Tsubaki E&M CO.: hereinafter referred to as "Seller"
Customer: hereinafter referred to as "Buyer"
Goods sold or supplied by Seller to Buyer: hereinafter referred to as "Goods"

1. Warranty period without charge

18 months effective the date of shipment or 12 months effective the first use of Goods, including installation of Goods to Buyer's equipment or machine - whichever comes first.

2. Warranty coverage

Should any damage or problem with the Goods arise within the warranty period, given that the Goods were operated and maintained according to the instructions provided in the manual, Seller will repair and replace at no charge once the Goods are returned to the Seller. This warranty does not include the following:

1) Any costs related to removal of Goods from the Buyer's equipment or machine to repair or replace parts.
2) Cost to transport Buyer's equipment or machines to the Buyer's repair shop.
3) Costs to reimburse any profit loss due to any repair or damage and consequential losses caused by the Buyer.

3. Warranty with charge

Seller will charge any investigation and repair of Goods caused by:

1) Improper installation by failing to follow the instruction manual.
2) Insufficient maintenance or improper operation by the Buyer.
3) Incorrect installation of Goods to other equipment or machines.
4) Any modifications or alterations of Goods by the Buyer.
5) Any repair by engineers other than the Seller or those designated by the Seller.
6) Operation in an inappropriate environment not specified in the manual.
7) Force Majeure or forces beyond the Seller's control such as natural disasters and injustices done by a third party.
8) Secondary damage or problems incurred by the Buyer's equipment or machines.
9) Defective parts supplied or specified by the Buyer.
10) Incorrect wiring or parameter settings by the Buyer.
11) The end of the life cycle of the Goods under normal usage.
12) Loss or damages not liable to the Seller.

4.Dispatch service

Service to dispatch a Seller's engineer to investigate, adjust or trial test Seller's Goods is at the Buyer's expense.

5. Disclaimer

1) In our constant efforts to improve, Tsubaki E&M may make changes to this document or the product described herein, without notice.
2) Considerable effort has been made to ensure that the contents of this document are free from technical inaccuracies and errors. However, any such inaccuracies or errors reported will be gladly examined and amended as necessary.

1. Installation direction

Universal. Can be installed freely (horizontal, vertical, inclined, etc.).

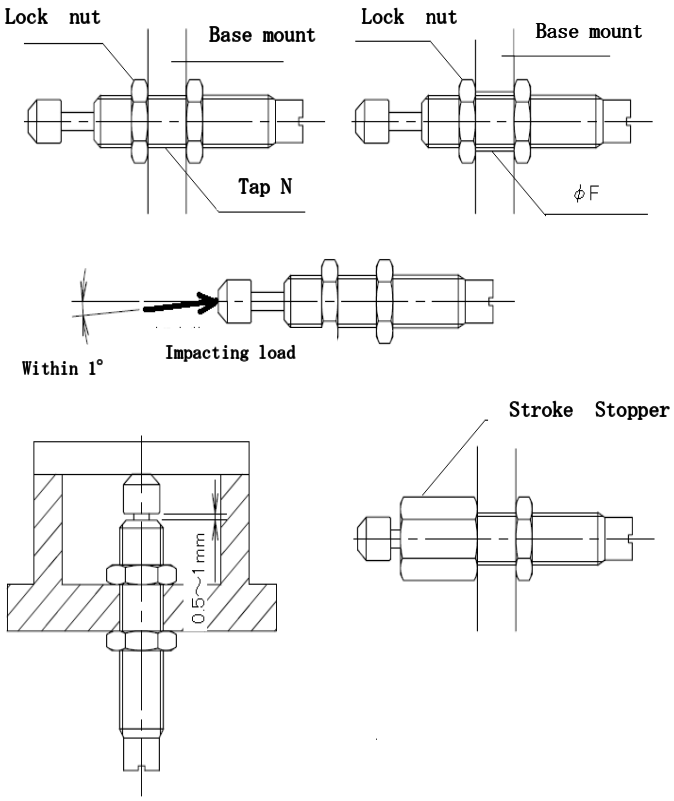
2. Mounting method

2-1 Machine the tap hole on the mounting base (refer to the chart below), screw in the Shock Damper to the tap hole, and lock with the attached nuts. Screws can be done in either direction.

2-2 Machine the following F mm diameter hole on the mounting base, then fix the Shock Damper with the attached nuts from both sides.

Model No.	Tap N	F (mm)
DP-J08C06＊-C	M8×1.0	8
DP-J10C08＊-C	M10×1.0	10
DP-J12C10＊-C	M12×1.0	12
DP-J14C12＊-C	M14×1.5	14
DP-J14A10-C	M14×1.5	14

Note) * denotes L, M or H speeds



3. Notes on installation

3-1 Align the direction of the movement of collision object and that of the center of Shock Damper within 1°.

3-2 Set the mechanical stopper at the end of the stroke to support the weight of the collision object.
The Shock Damper itself can not support the stationary load, specifically in the case of a vertical fall, or with thrust.
Set the stopper with a stroke margin of 0.5 to 1mm.
If it is impossible to set the stopper, use the optional stroke stopper.

3-3 Set enough open space around the Shock Damper for a more effective thermal diffusion.
Use the Shock Damper at an ambient temperature between 0 to 50° C.

3-4 The mounting base should have enough strength to endure the maximum resistance of the Shock Damper.
(It should satisfy 2 to 2.5 times of the maximum allowable resistance which is shown in the chart of the standard models in the catalog.)

3-5 Apply anti – loosening liquid (Screw lock, etc.) to the installation thread or nut at the base to prevent any loosening due to machine vibration.

4. Adjustment of the absorption energy

Adjust the energy on DP-J14A10-C as follows:

4-1 The Dial is divided 0 to 8 equally, and 0 is the weakest resistance while 8 is the maximum.

4-2 Rotate the dial and set the pointer between 6 and 7.

4-3 Test run 1 to 2 times, and check the amount of pull-in of the piston rod.

4-4 If the piston rod does not pull-in at full stroke and there is room, rotate the dial pointer to the smaller amount and operate until the stroke margin becomes 0.5 to 1mm.

4-5 If the piston rod pulls-in at full stroke, rotate to the larger amount and operate until the stroke margin becomes 0.5 to 1mm.

4-6 If external force (gravity, thrust, etc.) always acts, adjust as the distance is pulled-in rapidly.

Note) Loosen the set screw for dial anti-rotation and adjust. After adjusting, tighten the set screw securely.

5. Notes for use

5-1 Do not apply energy in excess of the value specified.

5-2 Use within allowable values on equivalent mass of collision object, collision velocity and frequency.

5-3 If DP-J14A10-Cs are used parallel, adjust the same dial to prevent the unbalance load.

5-4 Do not inadvertently loosen the oil plug.

5-5 The Shock Damper can only be used in atmospheric pressure.

5-6 Do not disassemble the Shock Damper.

6. Malfunction and measures

If any one of the following problems occurs, take measures immediately. For maintenance, inspect the following periodically:

Phenomenon	Cause	Measures
Insufficient collision absorption	Inappropriate load dial	Adjust appropriate load dial
	Lack of oil	Change Shock Damper
	Oil is split and deteriorated due to severe use	Consult TEM
	Piston is worn	Change Shock Damper
Abnormally high temperature of Shock Damper	Excessive frequency of use	Use below the limit
	Excessive collision velocity	Use below the limit
Piston rod movement is not smooth	Scratch on piston rod surface	Change Shock Damper
	Piston rod is bent	Change Shock Damper
	Eccentric load	Install correctly

7. Environment

When disposing of this product have a professional (industrial waste disposal contractor) dispose of it in an environmentally friendly manner.

This product conforms to RoHS standards.