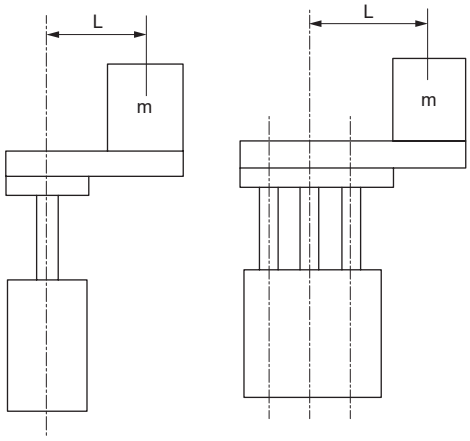
Selection guide

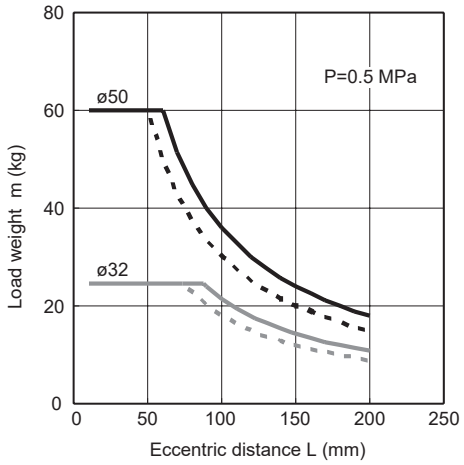
For vertical installation

● As for the total load weight, select so that the ratio of the load to the theoretical thrust is within the values in the table below.

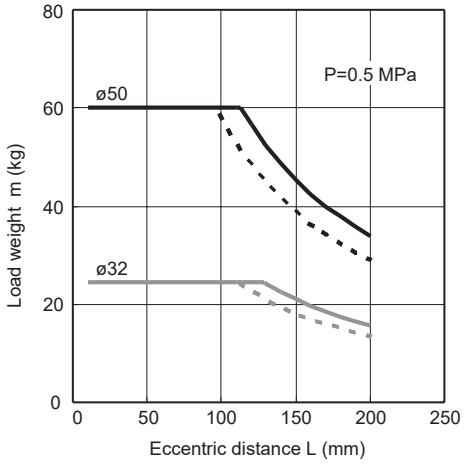
Item / Bore size (mm)	Load factor for theoretical thrust
ø32	60% or less
ø50	



● 50 mm or less stroke length

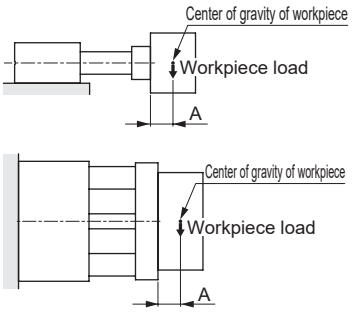


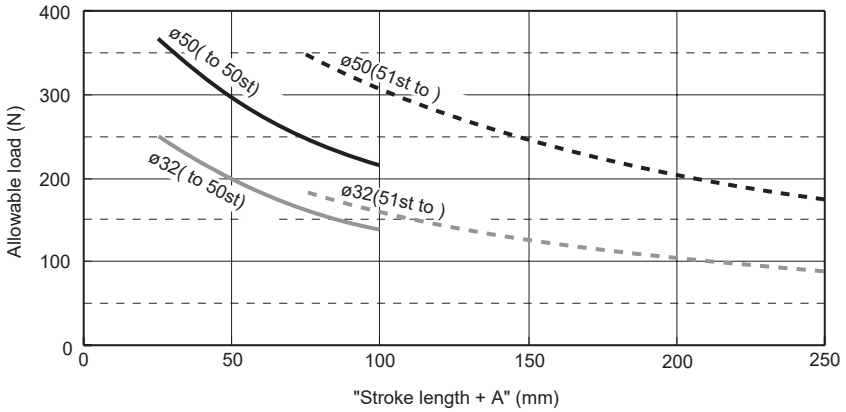
● Over 50 mm stroke length



*1 : For operation at low speed, select the model within the dotted line as a guide.

Allowable lateral load

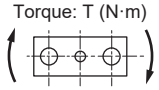




The allowable lateral load is a value for when the load is acting on the end surface of the end plate. When the center of gravity of the workpiece mounted on the end plate will be moved, substitute this distance for the stroke length before selection.

Allowable torque

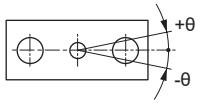
Torque: T (N·m)



Unit: N·m

Item / Bore size (mm)	Stroke length (mm) 25	50	75	100	125	150	175	200
ø32	8.0	6.3	6.6	5.7	5.1	4.5	4.1	3.7
ø50	15	12	17	15	13	12	11	10

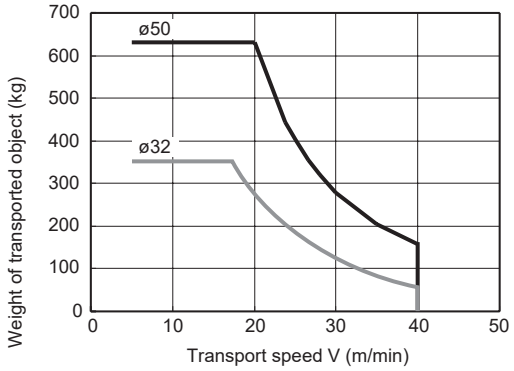
Non-rotating accuracy

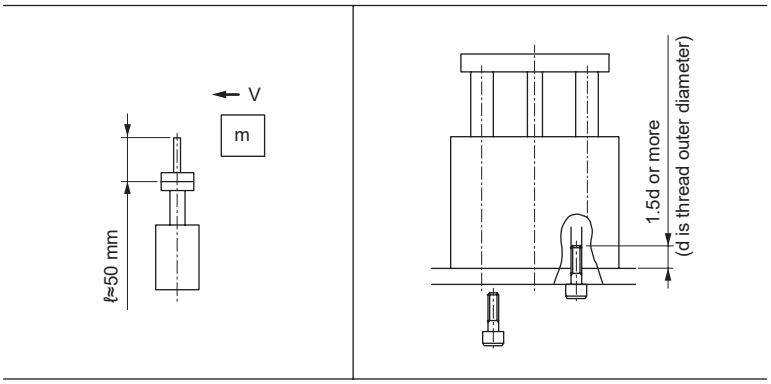


Item / Bore size (mm)	Non-rotating accuracy θ (degrees)
ø32	±0.05
ø50	

Selection guide

■ Specified range when using the product as a stopper





⚠ Safety precautions

*1 : When using the cylinder as a stopper, select a model with 50 mm stroke or less.
*2 : Make sure that the total length of the stopper section ℓ is 50 mm or less.
*3 : Make sure that the screw insertion depth of the bolt is 1.5d or more when fixing the cylinder body and consider countermeasures for preventing looseness (adhesive, spring washer, etc.).

■ Movable part weight table

Unit: kg

Item	Stroke length							
Bore size (mm)	25	50	75	100	125	150	175	200
ø32	1.62	1.85	2.24	2.47	2.71	2.94	3.17	3.40
ø50	2.71	3.05	3.66	4.00	4.34	4.68	5.01	5.35

■ Allowable absorbed energy calculation

Calculate the kinetic energy of the load that is actually to be used, and confirm whether it can be absorbed by the allowable absorbed energy of cylinder or not.

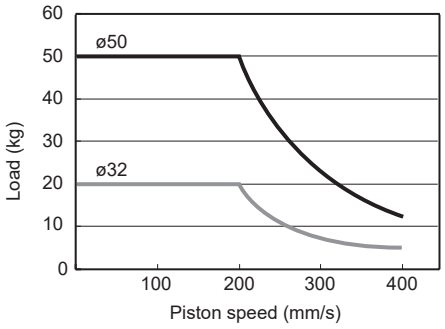
- To obtain the allowable absorbed energy of cylinder (E), use the value in the graph at right.
- Formula for calculating kinetic energy of load

$$E = \frac{1}{2} x(W1+W2)xV^2$$

W1: Applied load (kg) W2: Movable part weight of cylinder (kg)
V: Cylinder speed (m/s)

■ Allowable absorbed energy value

Use in the range below and to the left of the curve. For use in the upper right range, provide an external shock absorber.



■ Deflection

For the runout amount σ that is produced at the end of the end plate when no load is applied, the value in the graph below is used as a guide.
(Excluding sag of guide rod)