# Safety Precautions

Be sure to read this section before use.
Refer to Intro Page 63 for precautions for general pneumatic components.



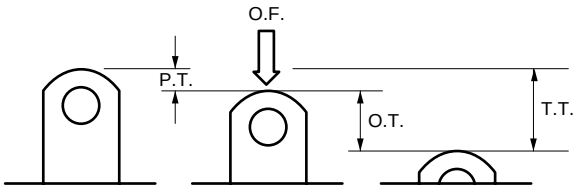
## Mounting, installation and adjustment

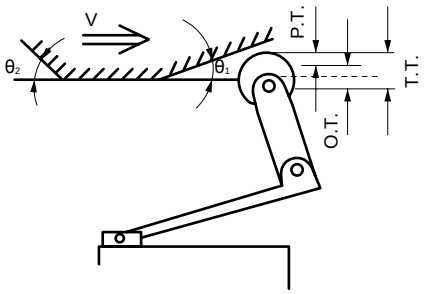
### ⚠CAUTION

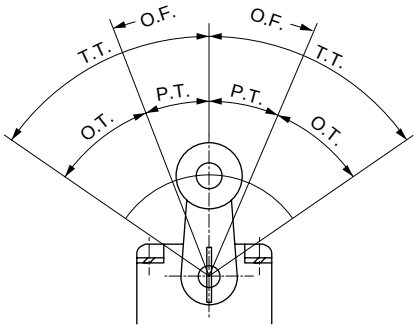
■ Do not move the component more than the total movement (T.T.).

· Actuator operation codes used in the catalog are shown below.

| Code | Explanation |
|---|---|
| O.F. | Necessary force for operation |
| P.T. | Action before valve open |
| O.T. | Action after valve open |
| T.T. | Total movement |



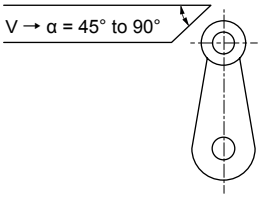




■ Dog

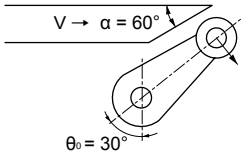
· Set the dog angle θ to 45 degree or less.
· If the dog speed is high, set θ to a small value.
· The dog operation position and depth should be designed to “P.T. + O.T./2”.
· Design the cam and dog so that the lever returns gradually.

(1) V ≤ 0.2 m/s



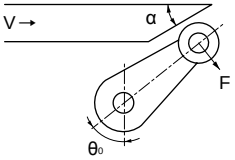

| α | Vmax(m/s) |
|---|---|
| 90° | 0.05° |
| 75° | 0.07° |
| 60° | 0.1° |
| 45° | 0.2° |

(2) V ≤ 0.1 m/s




Set the arm parallel to the dog’s cut face so that the force is applied at a right angle to the arm. Generally, α = 60° and θ = 30° are desirable for dog design and arm design.

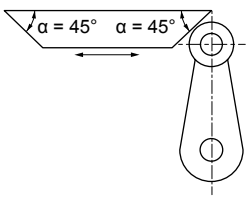
(3) V ≤ 2 m/s




Vmax (max. speed) increases when the angle is reduced. The arm always should be set parallel to the dog’s cut face.

| α = 90-θ | Vmax(m/s) |
|---|---|
| 40° | 0.7° |
| 35° | 0.9° |
| 30° | 1.3° |
| 25° | 2.0° |

(4) When the dog is exceeded (V≤0.2 m/s)




Set the arm perpendicularly so that α = 45°.
V ≤ 0.2 m/s is preferred.

■ Do not use the mechanical valve body as a mechanical stopper.

■ Do not apply excessive force when operating the toggle switch (MS-*-TG).