

# Fall Prevention System

## Features and Usage

- Valves that control the air for separating ATC.
- Prevents tools from falling or coming off due to misoperated valves, incorrectly handled solenoid valves, or residual air pressure caused by bent/clogged tubes.
- Can be added easily to existing system.

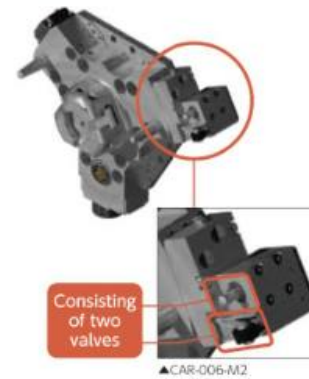
## Mechanism

- Allows air to be supplied to the unchucking port only when both of the valves are ON (ATC has been connected and placed on the stand) or OFF (ATC has been separated and the robot is off the stand)

## Attached view

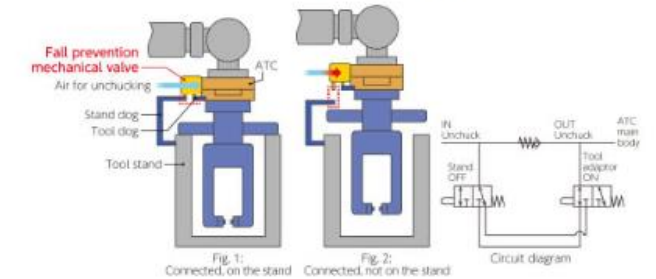
## Overview of fall prevention mechanical valves

## Attached view

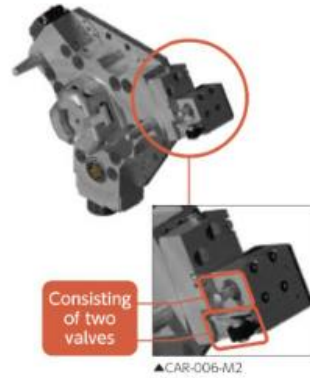


## Overview of fall prevention mechanical valves

A safety device that checks the ON/OFF of the two internal valves to keep air from supplying to the unchucking port unless the ATC is connected at a safe position. In Fig. 1, two valves are ON since the tool dog and stand dog have been detected, allowing ATC to be separated. In Fig. 2, air is not supplied to the unchucking port since the stand dog has not been detected, which keeps ATC from being separated.



## Attached view



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