Cylinder with Brake / with Lock

Contributing to equipment safety improvement with reliable and proven mechanical lock mechanism

What is a cylinder with brake/lock?

Integrated brake unit/lock unit with air cylinder

Brake/lock activates when air supply is OFF

Prevents falling during equipment maintenance or power interruption due to power outage

Unlike end lock mechanism, it can stop anywhere during the stroke.

Safety

Ensures safety of workpieces etc. even during power outages or accidents.

Energy Saving

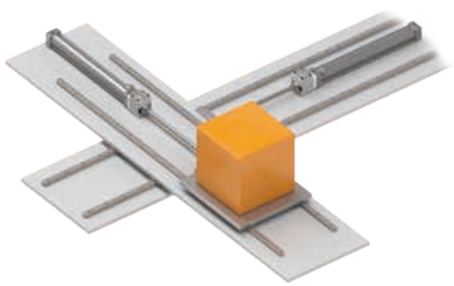
No power such as electricity or air is required while braking/locking.

Applications by Type

Cylinder Type	Application		Lock Direction	Circuit Configuration
Cylinder with Brake	Stop during operation	Stop position holding Multipoint positioning	Bi-directional	Balance regulator, brake release valve required
	Holding stationary state	Fall prevention during power outage/ emergency stop		
Cylinder with Lock	Holding stationary state	Fall prevention during power outage/ emergency stop	Uni-directional	Balance regulator, lock release valve not required

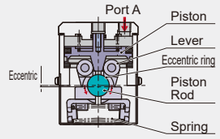
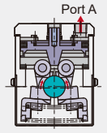
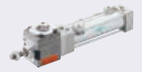
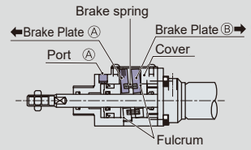
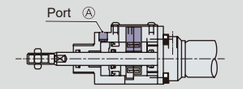
Application Example

Stop position holding

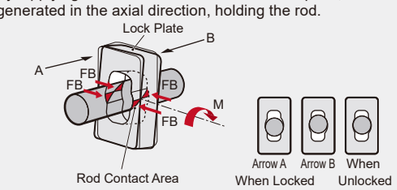
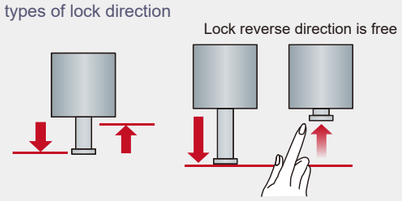


Position holding during power outage/

Cylinder with Brake

Model		Drive Cylinder	Holding Force (N)	Brake Method
JSK2		CMK2 ø20 to ø40	186 to 765	Rod clamping method  ●Brake release principle Air supplied from port A pushes the ? piston under it and opens the lever. The eccentric rings directly connected to the lever rotate and release the piston rod.  ●Brake operation principle If air is discharged from port A, the eccentric ring rotates due to the spring force, and the eccentric load is generated? to apply the brake to the piston rod.
JSM2		CMA2 ø20 to ø40	186 to 765	
JSG		SCG ø40 to ø100	980 to 6178	
JSC3		SCA2 ø40 to ø100	980 to 6178	
JSC4		SCS2 ø125 to ø180	9600 to 20000	
ULK		CMK2 ø20 to ø40	251 to 1005	Swash Plate Type  ●Brake operation principle When air is exhausted from port A, brake plates A and B tilt in the direction of the arrows from their respective fulcrums, the braking force is amplified by the cylinder thrust, and the piston rod is held.  ●Brake release principle When air is supplied through port A, brake plates A and B are pushed by the release piston, the brake plates and piston rod become perpendicular, and the piston rod becomes free.
SRT3		SRL3 ø12 to ø63	66 to 1870	

Cylinder with Lock

Model		Drive Cylinder	Locking Force (N)	Lock Method
USSD		SSD ø20 to ø100	150 to 3847	●High wear resistance circular slit method Adopts a new fall prevention mechanism with excellent durability. By applying rotational force M to the lock plate, a force F is generated in the axial direction, holding the rod.  ●2 types of lock direction 
USC		SCA2 ø40 to ø100	1005 to 6283	
UFCD		FCD ø25 to ø63	345 to 2200	
UCAC-N		CAC-N ø32 to ø40	631	
UCAC2		CAC4 ø50 to ø63	1470	