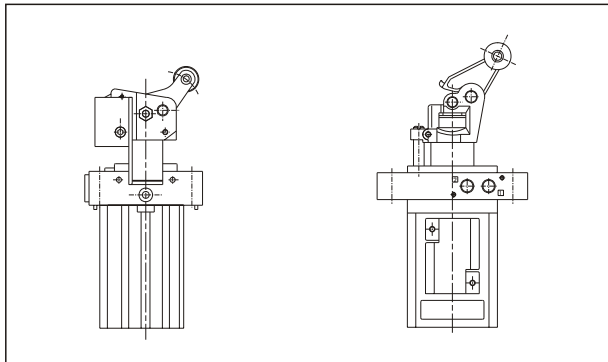


# Pallet Control Cylinder

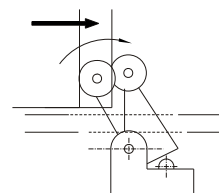
## STOPPER CYLINDER



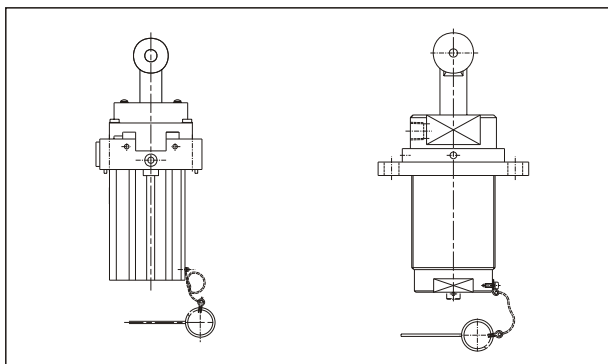
### Shockless stopper cylinder



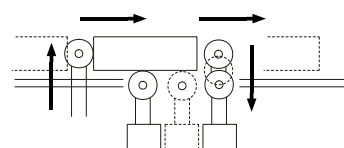
The built-in shock absorber softly catches and stops the work carrier. The strength of absorber can be easily adjusted, which makes the cylinder work in the best condition, conforming to the speed of the conveyor line and the weight of the work carrier.



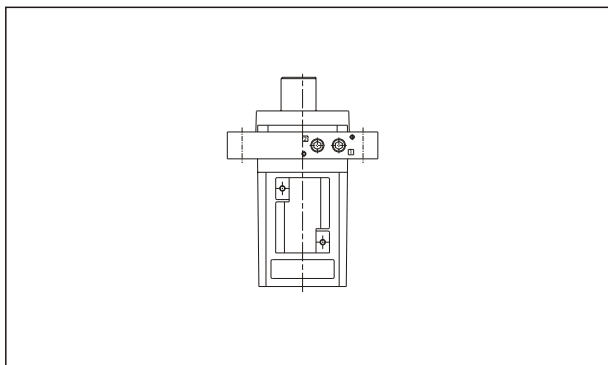
### Stopper cylinder with roller



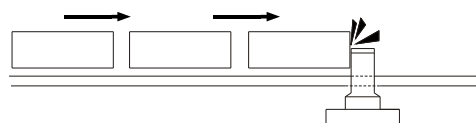
The top rollers with the built-in spring return in touch with the bottom of the work carrier. Automatically returns up to the original position as the work carrier pass by, and immediately works as a stopper for the next work carrier. Therefore the timing carriers does not need to be taken.



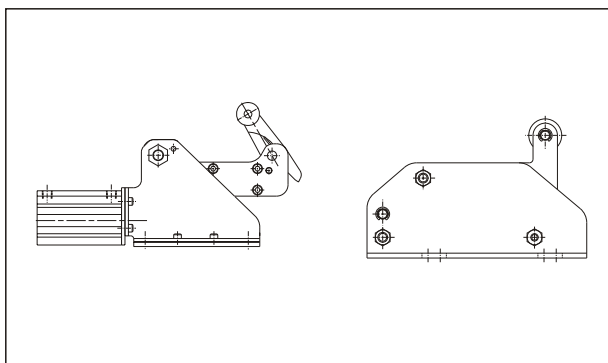
### Direct stopper cylinder



Rod and cylinder are designed for toughness against the large side load. Also suitable for the relatively slow-moving conveyor line with the heavy work carriers.



### Horizontal stopper cylinder



Horizontal stopper cylinder of lower height for conveying the heavy work carriers. Suitable as a stopper cylinder for accumulating line, ageing line, and mulit-stage conveyor line. Softly stops the work carriers of heavy weight and high speed.

# Pallet Control Cylinder

## STOPPER CYLINDER



Model	MSB*-series							
	MSBD				MSBR			
Operation type	Double acting with spring				Single acting(Spring extended)			
	Shockless stopper				Stopper with roller			
Standard stroke	φ 32-20	φ 50-30	φ 63-30	φ 80-40	φ 20-20	φ 32-20	φ 40-30	φ 50-30
Magnet	With magnet	With magnet	With magnet	With magnet	With magnet	With magnet	Without magnet	Without magnet
Diagram								

Model	MSB*-series			MSAR		
	MSBS			MSAR		
Operation type	Double acting			Single acting(Spring extended)		
	Direct stopper			Stopper with roller		
Standard stroke	φ 20-10	φ 32-20	φ 50-30	φ 32-30	φ 50-30	φ 80-30
Magnet	With magnet	With magnet	With magnet	Without magnet	Without magnet	Without magnet
Diagram						

Model	MSL*-series			
	MSLP-P	MSLP-CP	MSLL	MSLD
Operation type	Double acting		Double acting ( Spring extended )	
	Direct stopper		Stopper with roller	
Standard stroke	φ 32-40		φ 25-30	φ 50-50
Magnet	With magnet		Without magnet	With magnet
Diagram				

# MSB\* series

## STOPPER CYLINDER

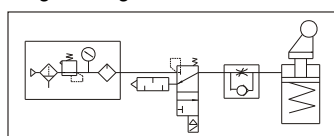


### Specification:

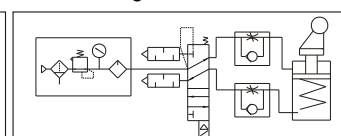
Model	MSB*	
Medium	Air	
Operating pressure range	2~9.9kgf/cm <sup>2</sup>	
Proof pressure	15kgf/cm <sup>2</sup>	
Ambient temperature	-5~+60℃ (No freezing)	
Lubrication	Not required	
Cushion	With rubber cushion pad	
Sensor switch	RCA for $\phi$ 50	RCB, RCE, RCE1
Sensor switch holder	HS	

### Piping diagram:

Single acting

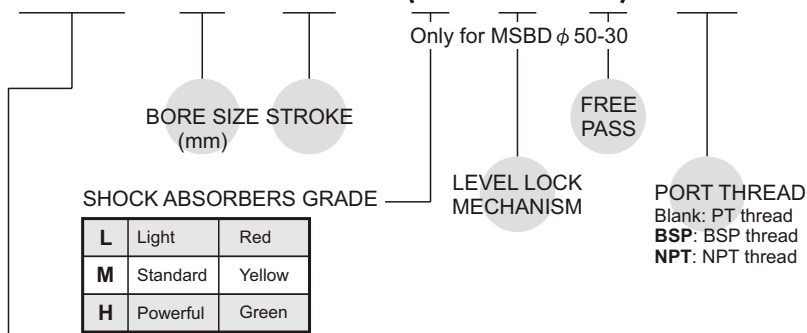


Double acting



### Order example:

**MSBD - 32 - 20 - (L - K - L) - BSP**

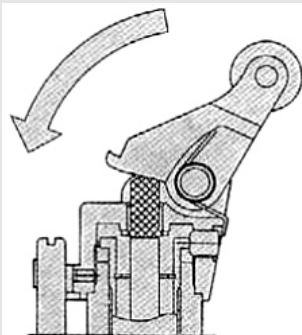


### MODEL

Type of cylinder	Operation type	Standard stroke	Magnet	Sensor switch	Weight
<b>MSBD</b> 	Double acting with spring	$\phi$ 32-20	○	RCE, RCE1	740 g
	Shockless stopper	$\phi$ 50-30	○	RCA	1800 g
		$\phi$ 63-30	○	RCB, RCE, RCE1	3680 g
<b>MSBR</b> 	Single acting (Spring extended)	$\phi$ 80-40	○	RCE, RCE1	6820 g
		$\phi$ 20-20	○	RCB	250 g
	Stopper with roller	$\phi$ 32-20	○	RCE, RCE1	740 g
<b>MSBS</b> 	Double acting	$\phi$ 40-30	×	—	1400 g
		$\phi$ 50-30	×	—	1800 g
	Direct stopper	$\phi$ 20-10	○	RCB	192 g
		$\phi$ 32-20	○	RCE, RCE1	720 g
		$\phi$ 50-30	○	RCA	1850 g

## Pallet control stopper type

### Shock absorber built-in



Absorbs the shock when the carried object stops, and stops the object softly on the right Position. There is an adapter between the lever and shock absorber, which straightens the inclined load on the lever and transmits it to the lever.

### Lever lock mechanism

With this optional feature, the carried object is not pushed back by the lever. Also the Object returns to the right position after being lifted up. The lock is released by supplying air and lowering the rod.

### Stopper mechanism

Guide bar equipped for fixing the direction of the roller lever.

### Light aluminum

Main cylinder part, shock absorber, and roller lever are integrated in the aluminum die cast body. The best cylinder for the light and space-saving conveyor line.

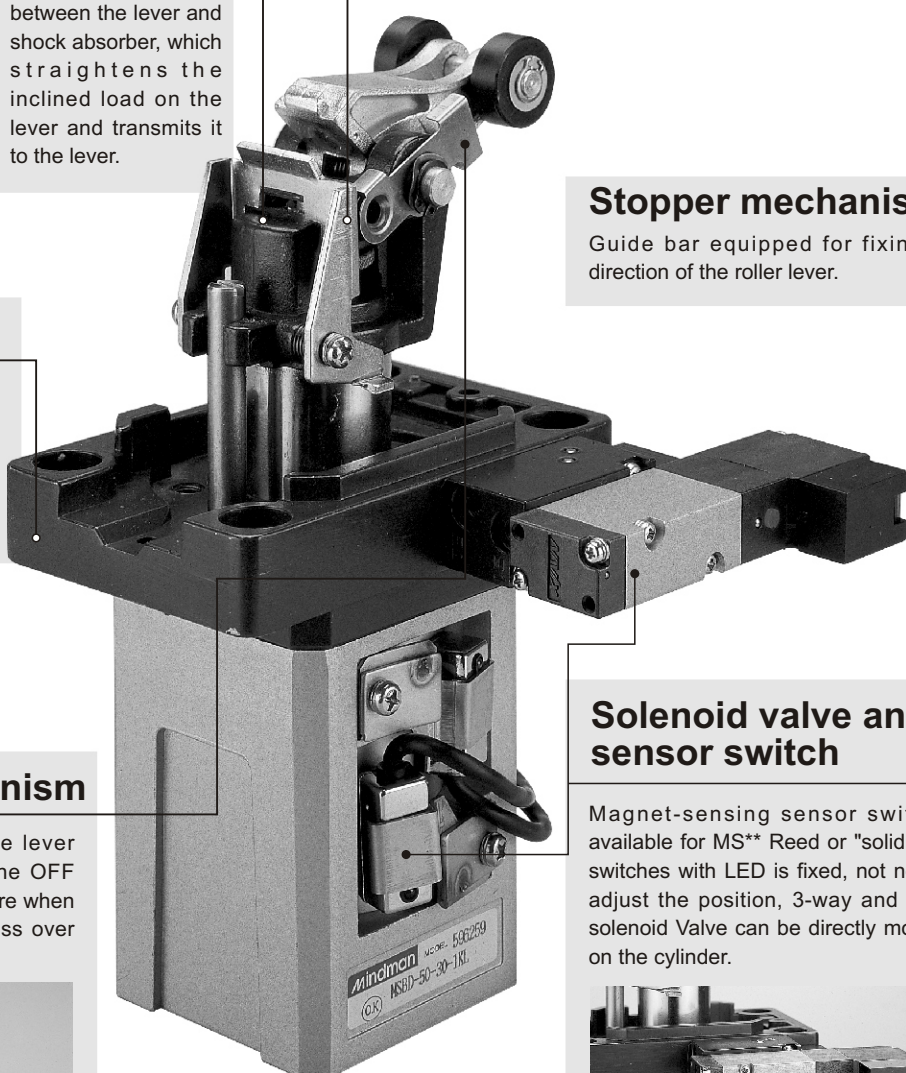
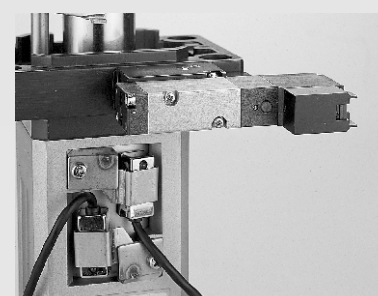
### Free pass mechanism

Setting the pass-plate on the lever holder, the lever is fixed in the OFF position. Use the optional feature when the carried object needs to pass over the cylinder.



### Solenoid valve and sensor switch

Magnet-sensing sensor switch is available for MS\*\* Reed or "solid state" switches with LED is fixed, not need to adjust the position, 3-way and 4-way solenoid Valve can be directly mounted on the cylinder.



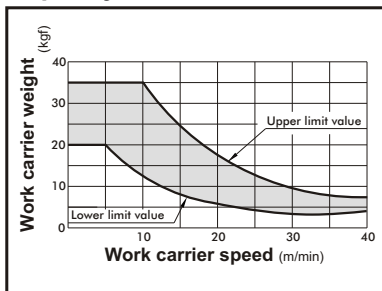
# MSBD Capacity $\phi 32 \sim \phi 80$

## STOPPER CYLINDER



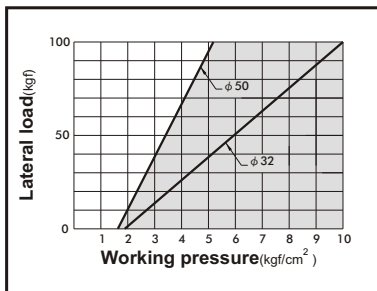
### MSBD $\phi 32-20$

#### Capacity



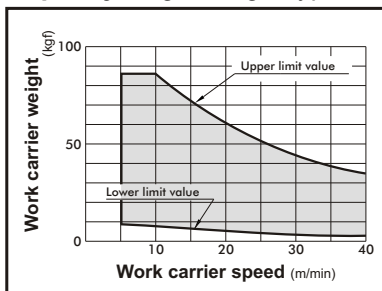
### MSBD-series

#### Normal lateral load

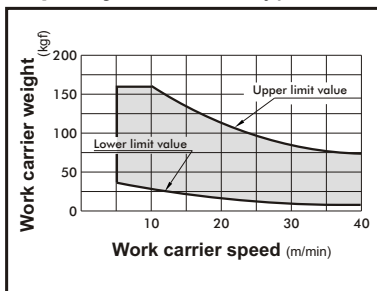


### MSBD $\phi 50-30$

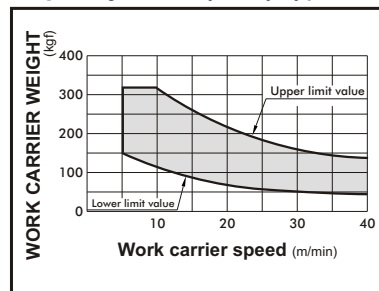
#### Capacity Light weight type



#### Capacity Standard type



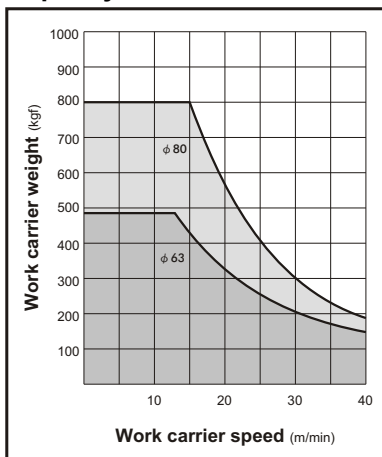
#### Capacity Heavy duty type



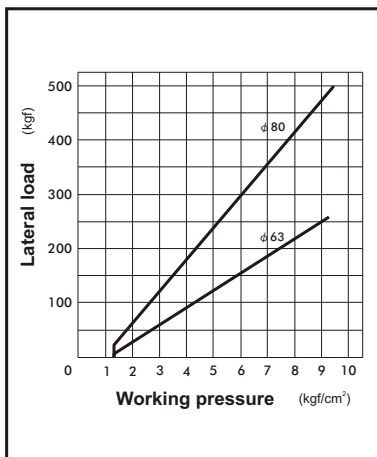
### MSBD $\phi 63-30$

### MSBD $\phi 80-40$

#### Capacity



#### Normal lateral load

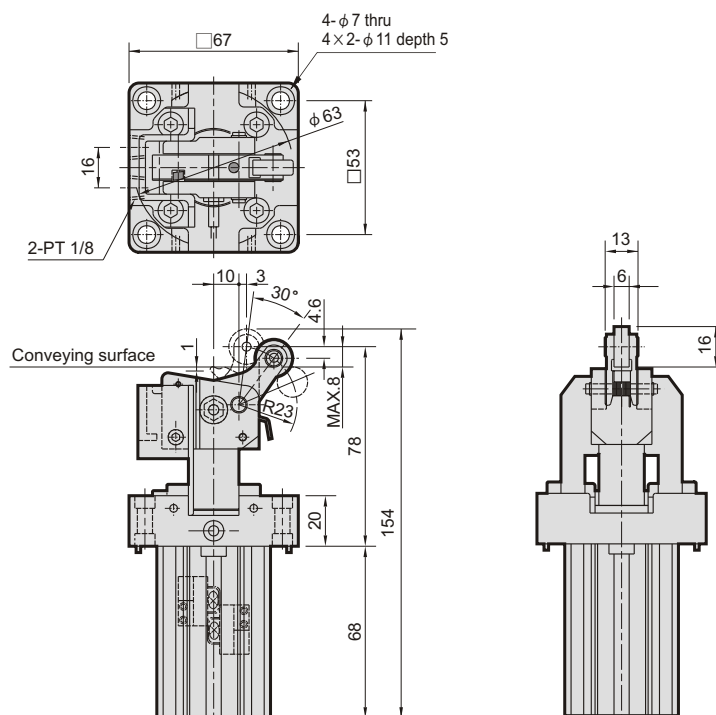


# MSBD $\phi 32, \phi 50$

## STOPPER CYLINDER



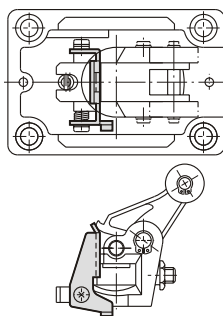
### MSBD $\phi 32-20$



### MSBD $\phi 50-30$

#### Option accessories

MSBD- $\phi 50 \times 30$ -K  
Lever lock mechanism



MSBD- $\phi 50 \times 30$ -L  
Free pass mechanism

