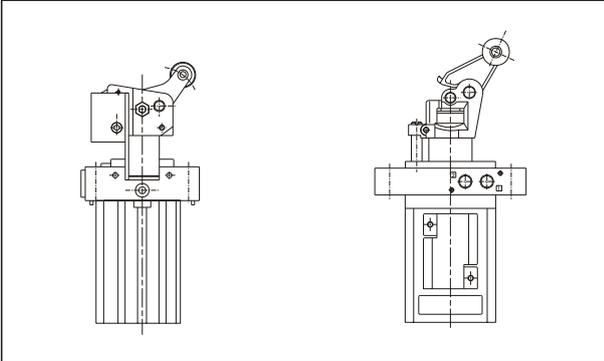


# Pallet Control Cylinder

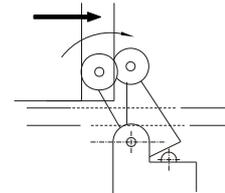
## STOPPER CYLINDER



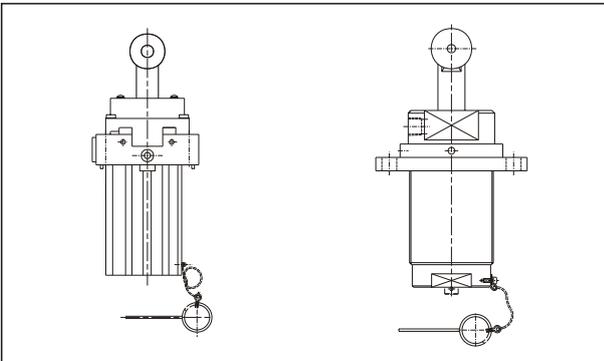
### Shockless stopper cylinder



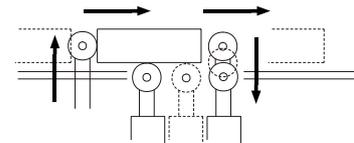
The built-in shock absorber softly catches and stops the work carrier. The strength of absorber can be easily adjusted, which makes the cylinder work in the best condition, conforming to the speed of the conveyor line and the weight of the work carrier.



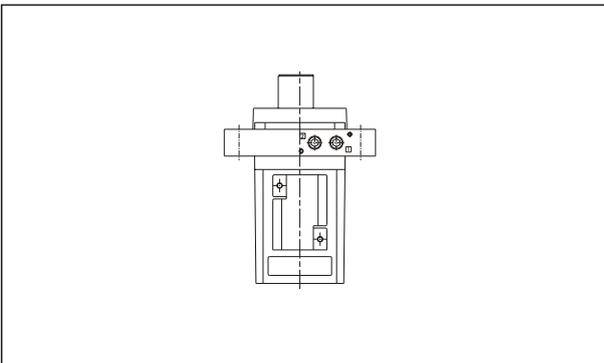
### Stopper cylinder with roller



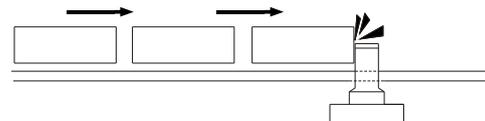
The top rollers with the built-in spring return in touch with the bottom of the work carrier. Automatically returns up to the original position as the work carrier pass by, and immediately works as a stopper for the next work carrier. Therefore the timing carriers does not need to be taken.



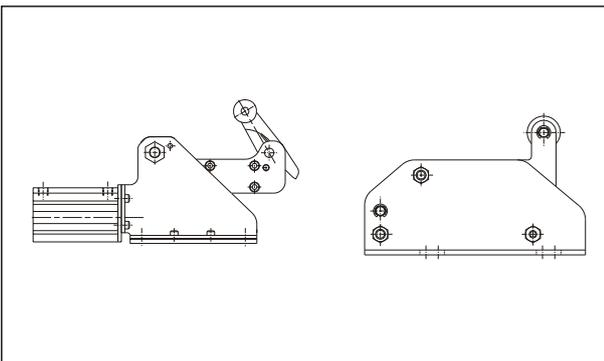
### Direct stopper cylinder



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 multistage 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					
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 )		Double acting with spring
	Direct stopper		Stopper with roller		Shockless stopper
Standard stroke	φ 32-40		φ 25-30	φ 40-30	φ 50-50
Magnet	With magnet		Without magnet	With magnet	With magnet
Diagram					

# MSAR series

## STOPPER CYLINDER



Order example:

**MSAR – 32 – 30 – BSP**

MODEL

BORE SIZE  
(mm)

STROKE

PORT THREAD  
Blank: PT thread  
BSP: BSP thread  
NPT: NPT thread

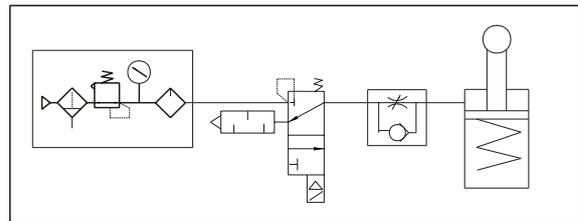
### Specification:

Model	MSAR	
Standard type	φ 32-30	1350 g
	φ 50-30	2150 g
	φ 80-30	9000 g
Acting type	Single acting (Spring extended)	
	Stopper with roller	
Medium	Air	
Operating pressure range	2-9.9kgf/cm <sup>2</sup>	
Proof pressure	15 kgf/cm <sup>2</sup>	
Ambient temperature	- 5~ + 60°C (No freezing)	
Lubrication	Not required	
Cushion	With rubber cushion pad	
Magnet	Without magnet	



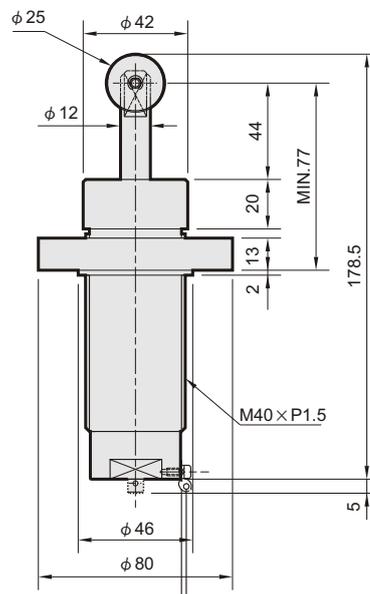
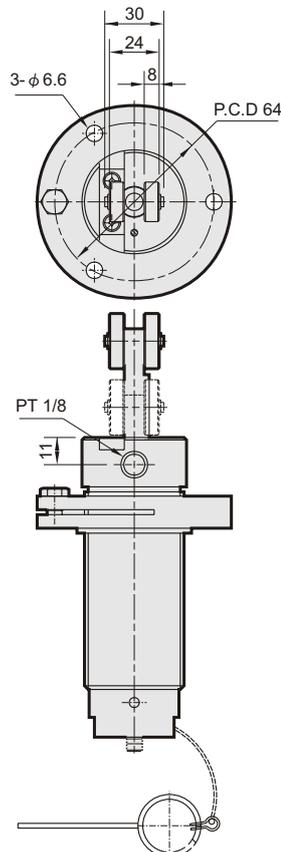
### Piping diagram:

Single acting

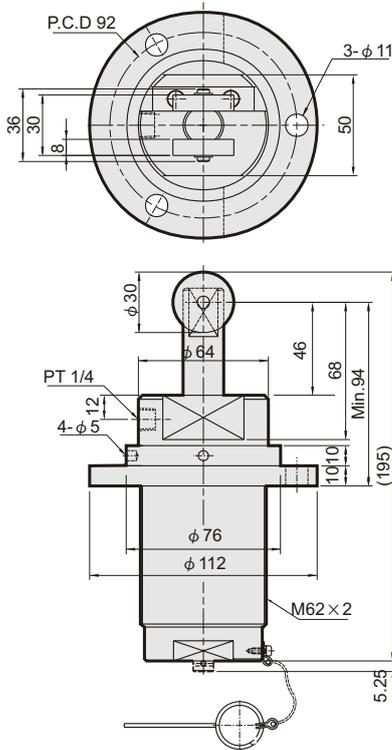


Order no.

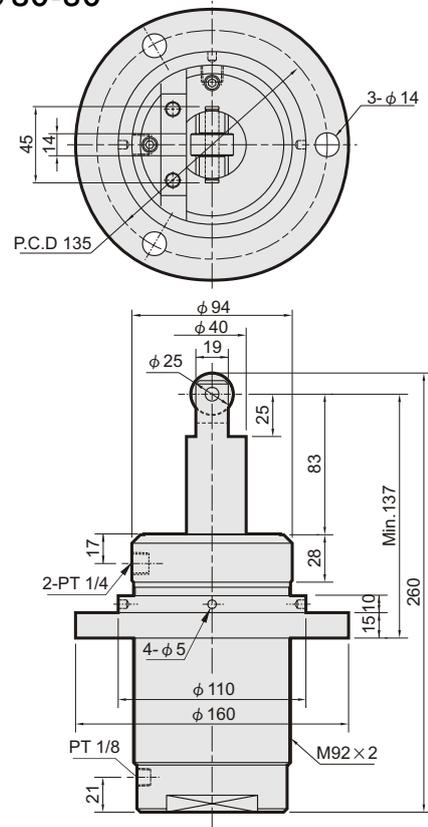
MSAR φ 32-30



Order no.  
MSAR  $\phi$  50-30

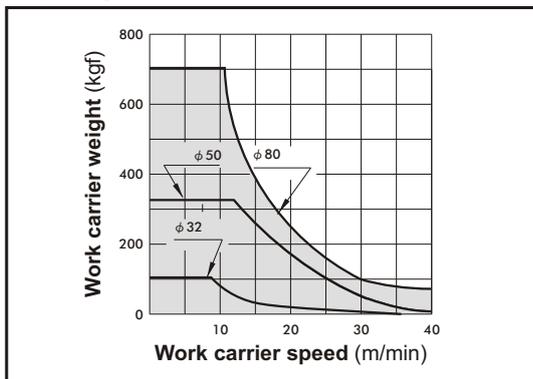


Order no.  
MSAR  $\phi$  80-30



※Roller is made of stainless steel.

### MSAR Capacity



### MSAR Normal lateral load

