

## Applications by pad type

### Flat / thin flat:

- Flat: for adsorption of general workpieces; and for adsorption of workpieces with flat and not deformed surface.
- Thin flat: for a workpiece which is likely to deform. Wrinkling or deformation during adsorption is reduced.  
*For sheets of vinyl*

### Flat with rib:

- When surface is likely to deform.
- For releasing a workpiece certainly.

### Sponge:

- For adsorption of workpieces with bumps.

### Ball joint:

- To be used when adsorption surface of work is not horizontal.

### Compact / short / nozzle pad:

- For adsorption of small components such as IC chips.
- Compact, space-saving.

### Vacuum pad for fixing panel:

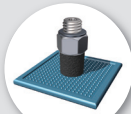
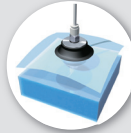
- For adsorbing and fixing the stage of panels or glass circuit board etc.
- Bellows mechanism allows complete contact with curved work surface.

### Vacuum pad for transferring disks:

- For adsorbing circular components like CD and DVD.
- Bellows mechanism is realised in the pad to dampen the impact to the work.

### Vacuum saving valve:

- Can restrict the reduction of vacuum pressure even when there is no workpiece.
- No need for switching operation when changing workpieces.
- Multiple vacuum pads can be operated by one ejector.
- When the workpieces have different shapes, the control circuit can be simplified.  
*For energy saving applications!*



### Bellows:

- For use where there is no space for the buffer (spring type).
- For adsorption of workpieces with inclined surface.

### Deep:

- To be used when work is curved shape.

### Oval pad:

- For workpieces with limitation on the adsorption surface.  
*For rectangular workpieces!*

### Heavy duty:

- For heavy or large workpieces

### Long stroke buffer:

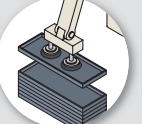
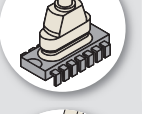
- To be used when work height is not even or cushioning toward work is required.

### Mark-free:

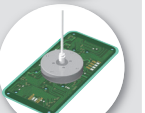
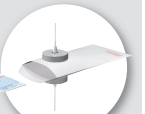
- For use where adsorption marks must not be left on workpieces:  
*Transferring glass substrates*
  - Solar cell manufacturing equipment
  - Semiconductor manufacturing equipment
  - FPD (Flat Panel Display) manufacturing equipment

### Mark-free cyclone pad XT661:

- Workpiece with uneven and/or viscous surface.
- Workpiece sensitive to scars or suction traces.
- Workpiece with holes.
- Thin / porous workpiece:
  - Solar battery cell
  - Liquid crystal glass
  - Film, paper, lumber, etc.



Made to order



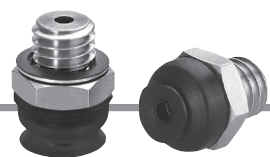
## Applications by pad material

Material	Application
NBR	Transfer of general work, Corrugated board, Veneer plate, Iron plate and others
Silicone rubber	Semiconductor, Removing from die-casting, Thin work, Food processor
Urethane rubber	Corrugated board, Iron plate, Veneer plate
FKM	Chemical work
Conductive NBR	General work of semiconductor (Static electricity resistance)
Conductive silicone rubber	Semiconductor (Static electricity)

- It is necessary to determine vacuum pad materials carefully taking into account the workpiece shape, adaptability in the operating environment, effect after being adsorbed, electrical conductivity, etc.
- Based on the work transfer example for each material, select after confirming the characteristics (adaptability) of rubber.

# Series ZP2

## How to Order



### With adapter ZP2-TB02 EU N-A5

#### Vacuum inlet direction

Symbol	Direction
T	Vertical

#### Pad diameter

Symbol	Pad diameter	Blast type
B02	ø2	●
B04	ø4	●
B06	ø6	●
08	ø8	—
15	ø15	—

#### Pad type

Symbol	Type
EU	Flat

#### Mounting

Symbol	Thread size	Adapter type
A5	M5 x 0.8	Hexagon O.D.
H5	M5 x 0.8	Hexagon socket head

#### Pad material

Symbol	Material
N	NBR
S	Silicone rubber
U	Urethane rubber
F	FKM
GN	Conductive NBR
GS	Conductive silicone rubber

#### Replacement Part No.

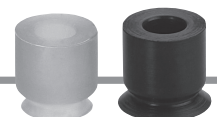
Model	Pad unit part no.	Adapter part no.
ZP2-TB02EU□-A5	ZP2-B02EU□	ZP2A-Z01P
ZP2-TB04EU□-A5	ZP2-B04EU□	
ZP2-TB06EU□-A5	ZP2-B06EU□	
ZP2-T08EU□-A5	ZP2-08EU□	
ZP2-T15EU□-A5	ZP2-15EU□	ZP2A-Z02P
ZP2-TB02EU□-H5	ZP2-B02EU□	
ZP2-TB04EU□-H5	ZP2-B04EU□	
ZP2-TB06EU□-H5	ZP2-B06EU□	
ZP2-T08EU□-H5	ZP2-08EU□	
ZP2-T15EU□-H5	ZP2-15EU□	

Note) □ in the table indicates the pad material.

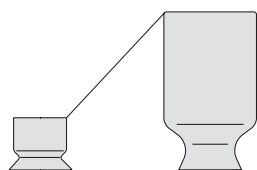
## AU: Flat

Pad diameter: ø2, ø3, ø4, ø6, ø8

## How to Order



Space-saving in the height direction



### Pad unit ZP2-02 AU N

#### Pad diameter

Symbol	Pad diameter	Blast type
02	ø2	—
03	ø3	—
04	ø4	—
06	ø6	—
B08	ø8	●

#### Pad type

Symbol	Type
AU	Flat

#### Pad material

Symbol	Material
N	NBR
S	Silicone rubber
U	Urethane rubber
F	FKM
GN	Conductive NBR
GS	Conductive silicone rubber

#### Adapter

Adapter part no.	Pad unit part no.	Thread size
ZP-312-A	ZP2-02AU□; ZP2-03AU□; ZP2-04AU□	M5 x 0.8

Note) For pad units ZP2-06AU□, ZP2-B08AU□ please consult SMC.