

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:

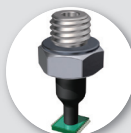
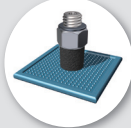
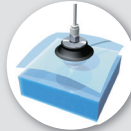
- For adsorbing and fixing the stage of panels or glass circuit board etc.
- Bellows mechanism allows complete contact with curved work surface.

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:

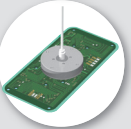
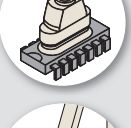
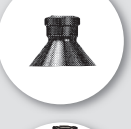
- To be used when work height is not even or cushioning toward work is required.

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.

Vacuum Pad Series ZP2

Heavy-duty Pad: H, HT, HB, HW

H: Heavy duty (Flat with rib)

HT: Heavy duty (Thin flat with rib)

Pad diameter: $\phi 32$, $\phi 150$, $\phi 250$, $\phi 300$, $\phi 340$

How to Order

- Reinforced pad to prevent deformation when transferring heavy or large workpieces.

Pad unit **ZP2 - 32 H N**

Pad diameter

Symbol	Pad diameter
32	$\phi 32$
150	$\phi 150$
250	$\phi 250$
300	$\phi 300$
340	$\phi 340$

Pad material

Symbol	Material
N	NBR
S	Silicone rubber
F	FKM
C	CR

Note) Silicone rubber is only applicable to the $\phi 32$ pad.

Pad type—Pad diameter

Pad type	Pad diameter (Symbol)	32	150	250	300	340
H (Flat with rib)		●	—	—	●	●
HT (Thin flat with rib)		—	●	●	—	—

Adapter

Adapter part no.	Pad unit part no.	Thread size
INO-3769-1435-A	ZP2-32H□	A14 x 1
ZP-497-A		G1/8
INO-3769-1341-AB	ZP2-150HT□	M8 x 1.25
ZP-307-A		M18 x 1.5
ZP-417-A	ZP2-250HT□	M20 x 2
ZP-124-A		M24 x 3
ZP-124-A	ZP2-300H□	M24 x 3

Note) For pad unit ZP2-340H□ please consult SMC.

HB: Heavy-duty (Bellows)

Pad diameter: $\phi 32$, $\phi 150$

How to Order

- For heavy or large workpieces

Pad unit **ZP2 - 32 HB N**

Pad diameter

Symbol	Pad diameter
32	$\phi 32$
150	$\phi 150$

Pad type

Symbol	Type
HB	Heavy-duty (Bellows)

Pad material

Symbol	Material
N	NBR
S	Silicone rubber
F	FKM
C	CR

Note) Silicone rubber is only applicable to the $\phi 32$ pad.

Adapter

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