

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:

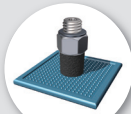
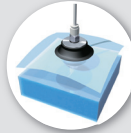
- For adsorbing and fixing the stage of panels or glass circuit board etc.
- Bellows mechanism allows complete contact with curved work surface.

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:

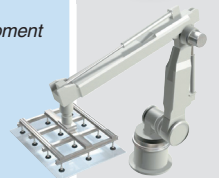
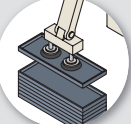
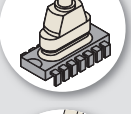
- To be used when work height is not even or cushioning toward work is required.

Mark-free:

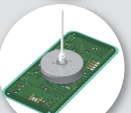
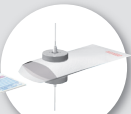
- For use where adsorption marks must not be left on workpieces:
Transferring glass substrates
 - Solar cell manufacturing equipment
 - Semiconductor manufacturing equipment
 - FPD (Flat Panel Display) manufacturing equipment

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 ZP

Heavy-duty Pad: H, HB

H: Heavy duty (Flat with rib)

HB: Heavy duty (Bellows)

Pad diameter: $\phi 40$, $\phi 50$, $\phi 63$, $\phi 80$, $\phi 100$, $\phi 125$

- Reinforced pad prevents deformation when transferring heavy or large workpieces.

How to Order

Pad unit

ZP 40 H N

Pad diameter

Symbol	Pad diameter
40	$\phi 40$
50	$\phi 50$
63	$\phi 63$
80	$\phi 80$
100	$\phi 100$
125	$\phi 125$

Pad material (□)

Symbol	Material
N	NBR
S	Silicone rubber
U	Urethane rubber
F	FKM
E	EPR

Pad type

Symbol	Type
H	Heavy-duty (Flat with rib)
HB	Heavy-duty (Bellows)



How to Order

With adapter

ZPT 40 H N -A14

Pad diameter

Symbol	Pad diameter
40	$\phi 40$
50	$\phi 50$
63	$\phi 63$
80	$\phi 80$
100	$\phi 100$
125	$\phi 125$

Pad type (*)

Symbol	Type
H	Heavy-duty (Flat with rib)
HB	Heavy-duty (Bellows)

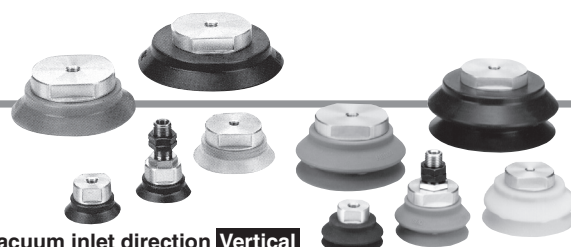
Pad material (□)

Symbol	Material
N	NBR
S	Silicone rubber
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F	FKM
E	EPR

Vacuum inlet direction **Vertical**

Mounting thread size (Vacuum inlet)

Mounting	Thread size	Pad diameter			
		$\phi 40$, $\phi 50$	$\phi 63$, $\phi 80$	$\phi 100$, $\phi 125$	
Male thread	M14 x 1	A14	Rc1/8	●	—
		A14N	NPT1/8	●	—
		A14T	NPTF1/8	●	—
	M16 x 1.5	A16	Rc1/8	—	●
		A16N	NPT1/8	—	●
		A16T	NPTF1/8	—	●
	Female thread	B8	M8 x 1.25	●	—
		B10	M10 x 1.5	●	—
		B12	M12 x 1.75	—	●
		B16	M16 x 1.5	—	●
				●	●
				●	●



Replacement Part No.

Model	Pad unit part no.	Adapter assembly part no.	Model	Pad unit part no.	Adapter assembly part no.
ZPT40*□-A14		ZPA-T1-B01	ZPT40*□-B8		ZPA-T1-B8
ZPT40*□-A14N	ZP40*□	ZPA-T1-N01	ZPT40*□-B10	ZP40*□	ZPA-T1-B10
ZPT40*□-A14T		ZPA-T1-T01	ZPT50*□-B8		ZPA-T1-B8
ZPT50*□-A14		ZPA-T1-B01	ZPT50*□-B10	ZP50*□	ZPA-T1-B10
ZPT50*□-A14N	ZP50*□	ZPA-T1-N01	ZPT63*□-B8		ZPA-T2-B8
ZPT50*□-A14T		ZPA-T1-T01	ZPT63*□-B10		ZPA-T2-B10
ZPT63*□-A16		ZPA-T2-B01	ZPT63*□-B12	ZP63*□	ZPA-T2-B12
ZPT63*□-A16N	ZP63*□	ZPA-T2-N01	ZPT63*□-B16		ZPA-T2-B16
ZPT63*□-A16T		ZPA-T2-T01	ZPT80*□-B8		ZPA-T2-B8
ZPT80*□-A16		ZPA-T2-B01	ZPT80*□-B10		ZPA-T2-B10
ZPT80*□-A16N	ZP80*□	ZPA-T2-N01	ZPT80*□-B12		ZPA-T2-B12
ZPT80*□-A16T		ZPA-T2-T01	ZPT80*□-B16	ZP80*□	ZPA-T2-B16
ZPT100*□-A16		ZPA-T3-B01	ZPT100*□-B12		ZPA-T3-B12
ZPT100*□-A16N	ZP100*□	ZPA-T3-N01	ZPT100*□-B16	ZP100*□	ZPA-T3-B16
ZPT100*□-A16T		ZPA-T3-T01	ZPT125*□-B12		ZPA-T3-B12
ZPT125*□-A16		ZPA-T3-B01	ZPT125*□-B16	ZP125*□	ZPA-T3-B16
ZPT125*□-A16N	ZP125*□	ZPA-T3-N01			
ZPT125*□-A16T		ZPA-T3-T01			

Note 1) * indicates the pad type.

Note 2) □ indicates the pad material.