

4.5-Stage Bellows Pad

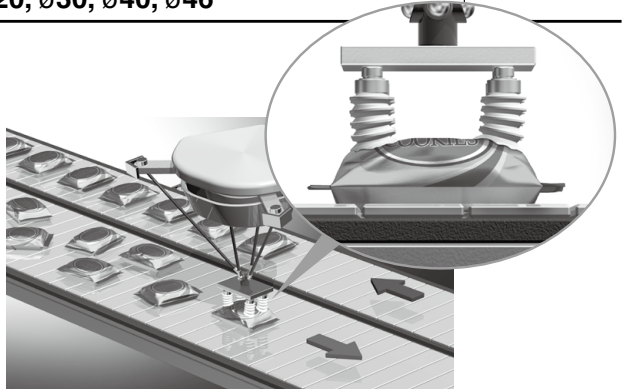
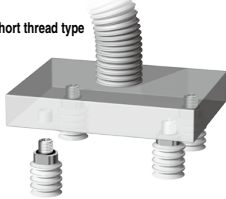
Symbol/Type

Pad diameter $\varnothing 15, \varnothing 20, \varnothing 30, \varnothing 40, \varnothing 46$

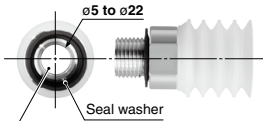
ZJ: Bellows

- For adsorbing workpieces flowing at high speeds
- Follows various shapes of workpieces.
- Pad material: Silicone rubber (Rubber hardness: A40, A50, A60)

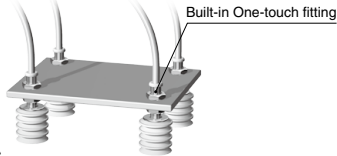
● Short thread type



● One-touch fitting type



● One-touch fitting type



- Large opening size (short thread type): $\varnothing 5$ to $\varnothing 22$
For vacuum blower pumps with high suction flow rates

How to Order

Vertical vacuum inlet
with adapter

ZP2-T B15 ZJ S-A10-06



Pad diameter

Symbol	Pad diameter
B15	$\varnothing 15$
B20	$\varnothing 20$
B30	$\varnothing 30$
40	$\varnothing 40$
46	$\varnothing 46$

Pad type

Symbol	Type
ZJ	Bellows

Vacuum inlet

Symbol	Vacuum inlet	Mounting thread size					
		A10	A16	A20	A30	AL12	AL14
Nil	Short thread	●	●	●	●	—	—
06	One-touch fitting ($\varnothing 6$)	—	—	—	—	●	●

Pad material

Symbol	Material	Applicable pad diameter					
		$\varnothing 15$	$\varnothing 20$	$\varnothing 30$	$\varnothing 40$	$\varnothing 46$	
N	NBR	—	—	—	●	●	
U	Urethane rubber	—	—	—	●	●	
F	FKM	—	—	—	●	●	
GN	Conductive NBR	—	—	—	●	●	
GS	Conductive silicone rubber (White)	—	—	—	●	●	
S	Silicone rubber (White)	Hardness A40 (Note)	●	●	●	—	—
		Hardness A50	—	—	—	●	●
S6	Silicone rubber High-hardness type (White)	Hardness A60	●	●	●	—	—

Note) Identification of rubber hardness: Painted with pink 1 dot

Mounting thread size

Type	Symbol	Thread size (Male thread)	$\varnothing 15$	$\varnothing 20$	$\varnothing 30$	$\varnothing 40$	$\varnothing 46$
Short thread	A10	M10 x 1	●	●	—	—	—
	A16	M16 x 1.5	—	—	●	—	—
	A20	M20 x 1.5	—	—	—	●	—
One-touch fitting	A30	M30 x 1.5	—	—	—	—	●
	AL12	M12 x 1	—	●	●	—	—
	AL14	M14 x 1	—	—	●	●	—

Replacement Part No. (Short Thread Type)

Product part no.	Pad unit part no.	Adapter part no.
ZP2-TB15ZJS□-A10	ZP2-B15ZJS□	ZP2A-Z31-1P
ZP2-TB20ZJS□-A10	ZP2-B20ZJS□	ZP2A-Z31-2P
ZP2-TB30ZJS□-A16	ZP2-B30ZJS□	ZP2A-Z31-3P
ZP2-T40ZJ□-A20	ZP2-40ZJS	ZP2A-Z31-4P
ZP2-T46ZJ□-A30	ZP2-46ZJS	ZP2A-Z31-5P

Replacement Part No. (One-touch Fitting Type)

Product part no.	Pad unit part no.	Adapter part no.
ZP2-TB15ZJS□-AL12-06	ZP2-B15ZJS□	ZP2A-Z32-1
ZP2-TB20ZJS□-AL12-06	ZP2-B20ZJS□	ZP2A-Z32-2
ZP2-TB30ZJS□-AL14-06	ZP2-B30ZJS□	ZP2A-Z32-3
ZP2-T40ZJ□-AL14-06	ZP2-40ZJS	ZP2A-Z32-4
ZP2-T46ZJ□-AL14-06	ZP2-46ZJS	ZP2A-Z32-5

Vacuum
Equipment

ZK2

ZP2

ZP2V

XT661

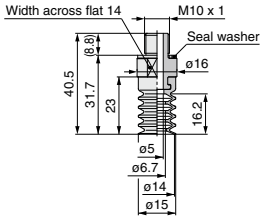
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Series ZP2

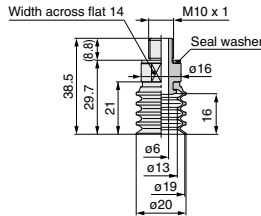
Dimensions

■ Vacuum inlet: Short thread type

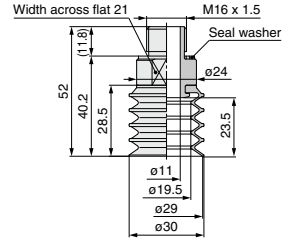
ZP2-TB15ZJS□-A10



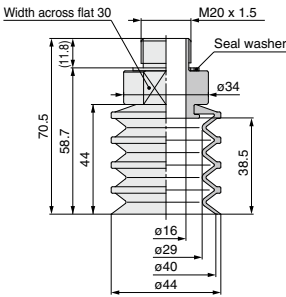
ZP2-TB20ZJS□-A10



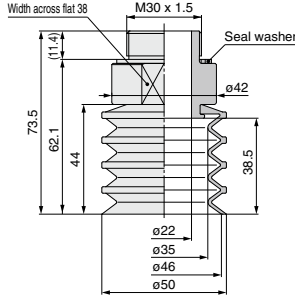
ZP2-TB30ZJS□-A16



ZP2-T40ZJ□-A20



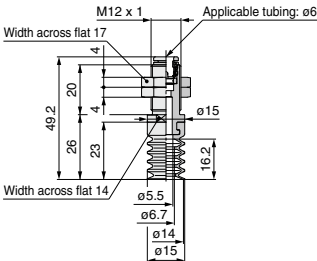
ZP2-T46ZJ□-A30



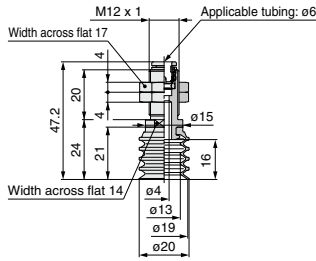
Weight	[g]
ZP2-TB15ZJS□-A10	9.0
ZP2-TB20ZJS□-A10	9.0
ZP2-TB30ZJS□-A16	20.5
ZP2-T40ZN-A20	51.0
ZP2-T40ZJS□-A20	50.0
ZP2-T40ZJU-A20	51.0
ZP2-T40ZJF-A20	60.0
ZP2-T40ZJGN-A20	51.0
ZP2-T40ZJGS-A20	51.0
ZP2-T46ZJN-A30	84.0
ZP2-T46ZJS□-A30	82.0
ZP2-T46ZJU-A30	84.0
ZP2-T46ZJF-A30	95.0
ZP2-T46ZJGN-A30	84.0
ZP2-T46ZJGS-A30	84.0

■ Vacuum inlet: One-touch fitting type

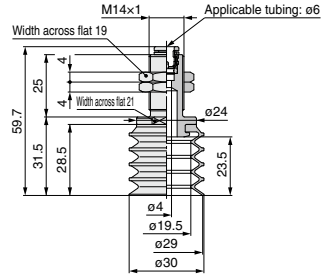
ZP2-TB15ZJS□-AL12-06



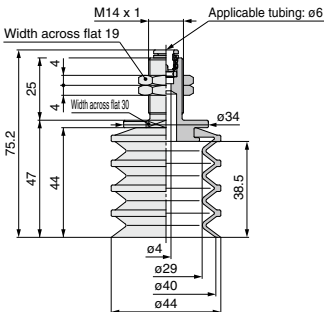
ZP2-TB20ZJS□-AL12-06



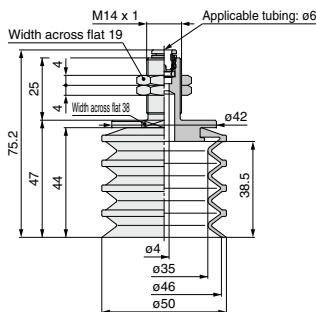
ZP2-TB30ZJS□-AL14-06



ZP2-T40ZJ□-AL14-06



ZP2-T46ZJ□-AL14-06



Weight	[g]
ZP2-TB15ZJS□-AL12-06	17.0
ZP2-TB20ZJS□-AL12-06	17.0
ZP2-TB30ZJS□-AL14-06	26.5
ZP2-T40ZJN-AL14-06	46.0
ZP2-T40ZJS□-AL14-06	45.0
ZP2-T40ZJU-AL14-06	46.0
ZP2-T40ZJF-AL14-06	55.0
ZP2-T40ZJGN-AL14-06	46.0
ZP2-T40ZJGS-AL14-06	46.0
ZP2-T46ZJN-AL14-06	56.0
ZP2-T46ZJS□-AL14-06	54.0
ZP2-T46ZJU-AL14-06	56.0
ZP2-T46ZJF-AL14-06	67.0
ZP2-T46ZJGN-AL14-06	56.0
ZP2-T46ZJGS-AL14-06	56.0

How to Order

Pad unit **ZP2-B15ZJ S**

Pad diameter

Symbol	Pad diameter
B15	ø15
B20	ø20
B30	ø30
40	ø40
46	ø46

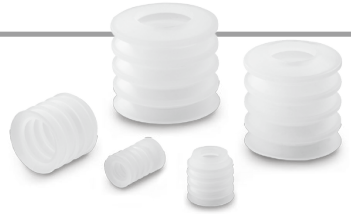
Pad type

Symbol	Type
ZJ	Bellows

Pad material

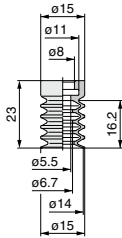
Symbol	Material	Applicable pad diameter				
		ø15	ø20	ø30	ø40	ø46
N	NBR	—	—	—	●	●
U	Urethane rubber	—	—	—	●	●
F	FKM	—	—	—	●	●
GN	Conductive NBR	—	—	—	●	●
GS	Conductive silicone rubber (White)	—	—	—	●	●
S	Silicone rubber (White)	Hardness A40 ^{Note}	●	●	●	—
		Hardness A50	—	—	—	●
S6	Silicone rubber High-hardness type (White)	Hardness A60	●	●	●	—

Note) Identification of rubber hardness: Painted with pink 1 dot

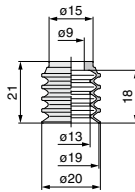


Dimensions: Pad Unit

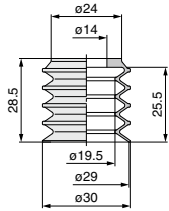
ZP2-B15ZJS □



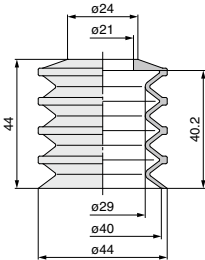
ZP2-B20ZJS □



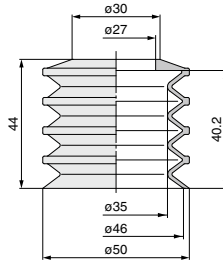
ZP2-B30ZJS □



ZP2-40ZJ □



ZP2-46ZJ □

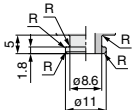


Weight	[g]
ZP2-B15ZJS □	2.0
ZP2-B20ZJS □	2.0
ZP2-B30ZJS □	4.5
ZP2-40ZJN	16.0
ZP2-40ZJS □	15.0
ZP2-40ZJU	16.0
ZP2-40ZJF	25.0
ZP2-40ZJGN	16.0
ZP2-40ZJGS	16.0
ZP2-46ZJN	19.0
ZP2-46ZJS □	17.0
ZP2-46ZJU	19.0
ZP2-46ZJF	30.0
ZP2-46ZJGN	19.0
ZP2-46ZJGS	19.0

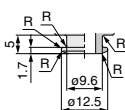
Adapter (Mounting) Dimensions

If an adapter will be made by the customer, design the adapter with the dimensions shown below.

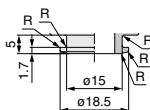
Applicable pad ZP2-B15ZJS □



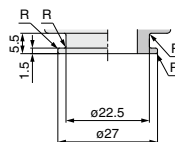
Applicable pad ZP2-B20ZJS □



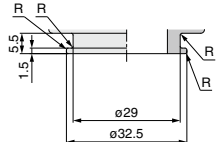
Applicable pad ZP2-B30ZJS □



Applicable pad ZP2-40ZJ □



Applicable pad ZP2-46ZJ □

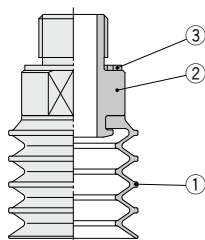


Note) R part has to be smooth with no corners.

Series ZP2

Component Parts

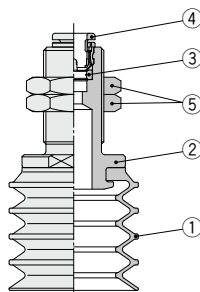
■ Short thread type (Pad with adapter)



Component Parts

No.	Description	Material (Surface treatment)
1	Pad	Refer to the pad material (page 1530).
2	Adapter	Aluminum alloy (Anodized)
3	Seal washer	Structural steel/NBR

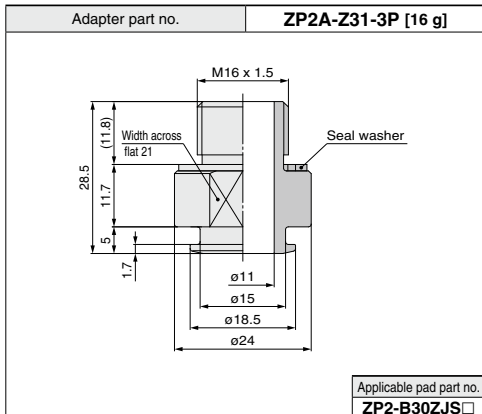
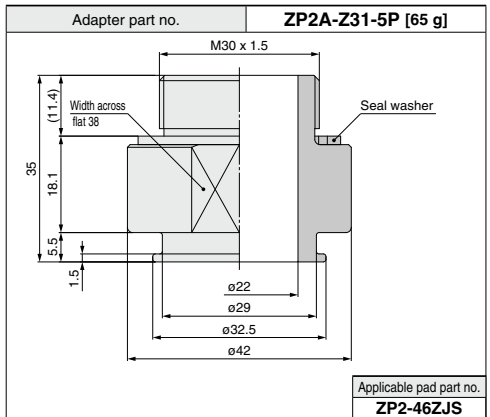
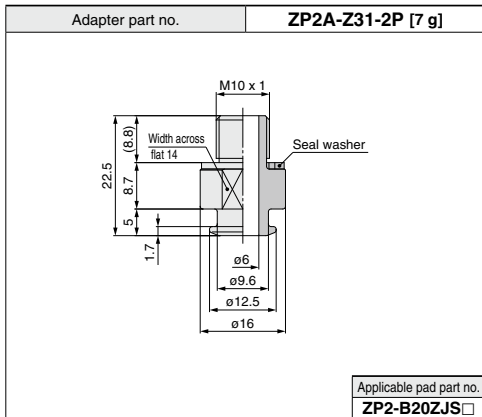
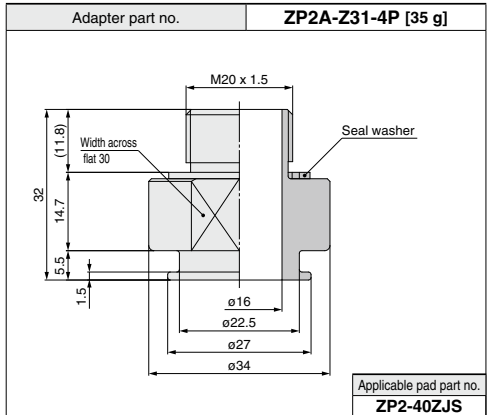
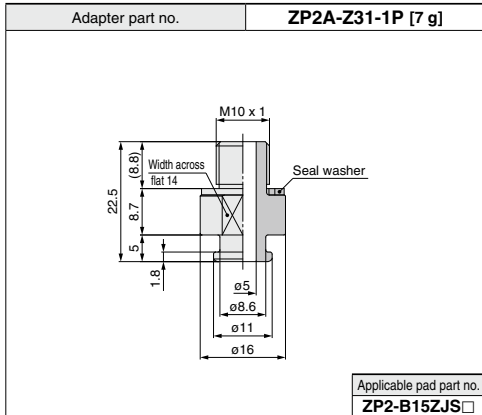
■ One-touch fitting type (Pad with adapter)



Component Parts

No.	Description	Material (Surface treatment)
1	Pad	Refer to the pad material (page 1530).
2	Adapter	Aluminum alloy (Anodized)
3	Seal	NBR
4	Cassette	—
5	Nut	Structural steel (Trivalent chromated)

Short Thread Type



Vacuum Equipment

ZK2

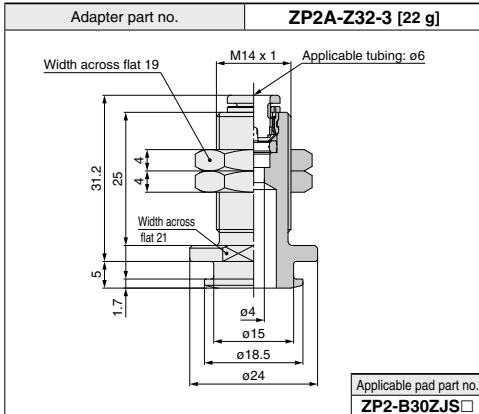
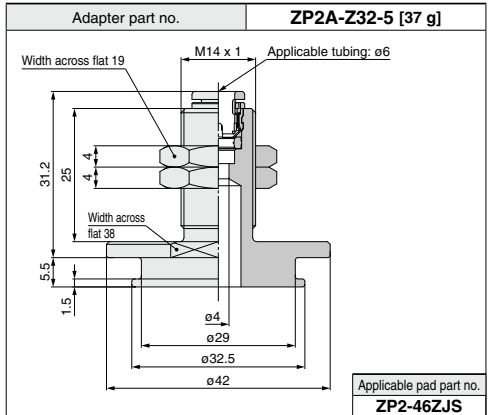
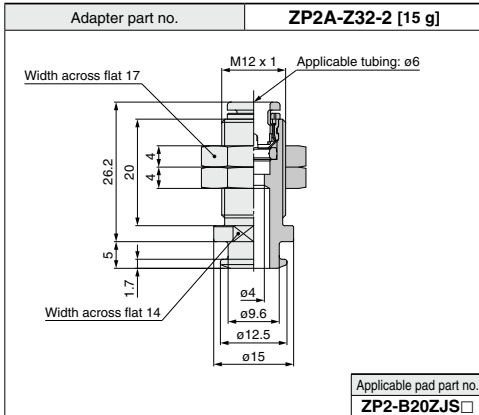
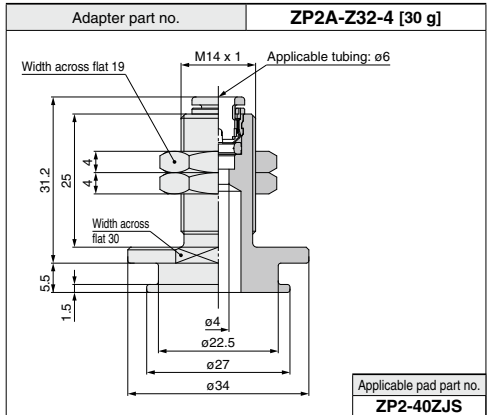
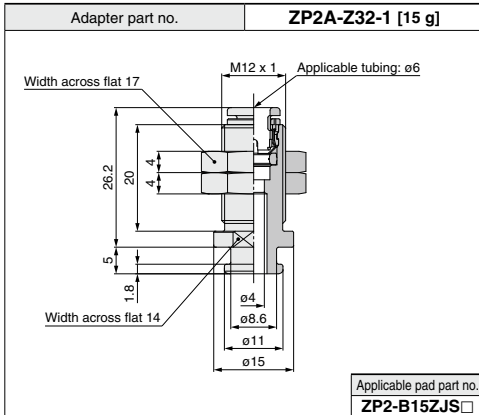
ZP2

ZP2V

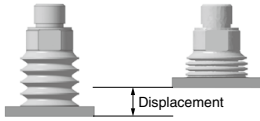
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One-touch Fitting Type

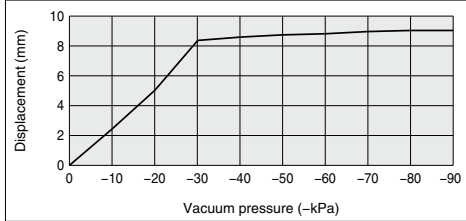


Pad Displacement to Vacuum Pressure (Pad material: Silicone rubber)

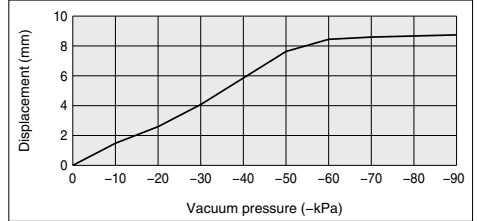


The data shown below are not guaranteed but actual measured (initial value). These values depend on the operating environment, workpiece weight and transfer method, so they cannot be guaranteed by SMC. Thorough research and confirmation are necessary before use.

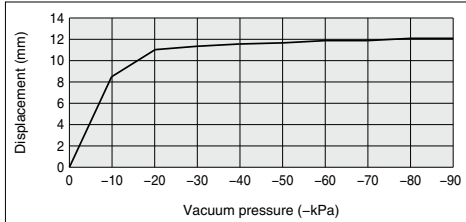
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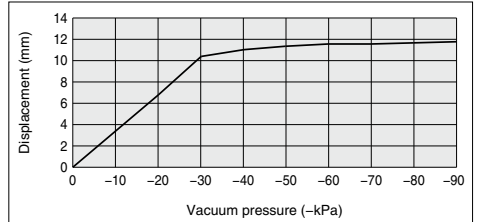
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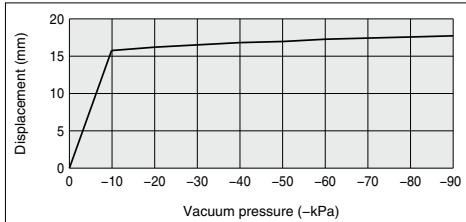
ZP2-B20ZJS



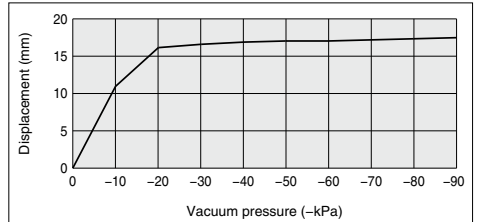
ZP2-B20ZJS6



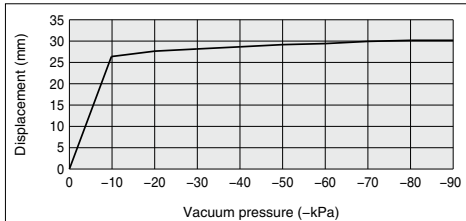
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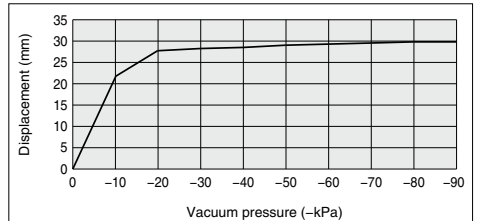
ZP2-B30ZJS6



ZP2-40ZJS



ZP2-46ZJS



Vacuum Equipment

ZK2

ZP2

ZP2V

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