

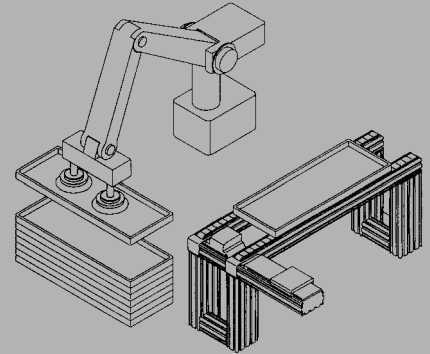
Vacuum Pad: Large/Heavy Duty Type

Series ZPT/ZPX


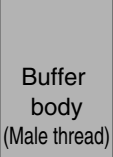

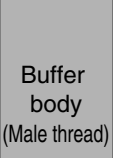
Ideal for heavy weight material or objects with a large surface area. Example: CRT, Car body

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

Pad material: NBR, Silicon rubber, Urethane rubber, Fluoro rubber, EPR



Variations

Type	Without buffer		With buffer		Page
	Mounting	Vacuum entry port	Mounting	Vacuum entry port	
 Series ZPT Vertical vacuum entry	Male thread	Female thread	 Buffer body (Male thread)	Female thread	1190 to 1194
	Female thread	Common			
 Series ZPX Lateral vacuum entry	Female thread	Female thread	 Buffer body (Male thread)	Female thread	1195 to 1198

Series ZPT ZPX	Pad dia.	$\varnothing 40$	$\varnothing 50$	$\varnothing 63$	$\varnothing 80$	$\varnothing 100$	$\varnothing 125$
	Buffer stroke	25	○	○	○	○	○
	50	○	○	○	○	○	○
	75	○	○	○	○	○	○
	100	—	—	—	—	○	○

Pad Material and Characteristics

◎: Little or no influence ○: Can be used depending on conditions X: Not suitable

Characteristics	Durometer HS ($\pm 5^{\circ}\text{C}$)	Operating temperature range ($^{\circ}\text{C}$)	Oil resistance gasoline	Oil resistance benzol	Base resistance	Acid resistance	Weatherability	Ozone resistance	Abrasion resistance	Waterproof	Solvent resistance (Benzene, toluene)
NBR	50 $^{\circ}\text{C}$	0 to 120	◎	x	○	○	x	x	◎	○	x
Silicon rubber	50 $^{\circ}\text{C}$	-30 to 200	x	x	○	x	◎	◎	x	○	x
Urethane rubber	50 $^{\circ}\text{C}$	0 to 60	◎	x	x	x	○	◎	◎	x	x
Fluoro rubber	60 $^{\circ}\text{C}$	0 to 250	◎	◎	x	◎	◎	◎	○	◎	◎
EPR	60 $^{\circ}\text{C}$	-20 to 150	x	x	◎	○	◎	◎	○	◎	x

The above table covers only general characteristics of subject rubber materials.

Pad materials used by SMC pass the nominal JIS material standards; however, actual performance depends on operating conditions.

- ZA
- ZX
- ZR
- ZM
- ZMA
- ZQ
- ZH
- ZU
- ZL
- ZY□
- ZF□
- ZP□
- SP
- ZCUK
- AMJ
- AMV
- AEP
- HEP

Related Equipment

Vacuum Pad: Large/Heavy Duty Type Vertical Vacuum Entry Without Buffer Series ZPT



Specifications

Mounting	Vacuum entry direction	Vertical		
	Connection	Male thread	Female thread	
	Thread dia.	ø40, ø50	M14 x 1	M8 x 1.25, M10 x 1.5
		ø63, ø80	M16 x 1.5	M8 x 1.25, M10 x 1.5, M12 x 1.75, M16 x 1.5
	ø100, ø125	M16 x 1.5	M12 x 1.75, M16 x 1.5	
Vacuum entry port		1/8 (Rc, NPT, NPFT)	Use the mounting port	

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark (F)), EPR (Black with mark (E))
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass Difference for Other Materials

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	0	5	-1
ø50	-1	0	8	0
ø63	-2	0	16	0
ø80	-3	1	27	-1
ø100	-5	1	53	-1
ø125	-8	3	84	0

Mass (NBR)

Model	Mass	Model	Mass
ZPT40HN-A14	71	ZPT80HN-A16	178
ZPT40HN-B8	38	ZPT80HN-B8	144
ZPT40HN-B10	37	ZPT80HN-B10	143
ZPT50HN-A14	83	ZPT80HN-B12	141
ZPT50HN-B8	50	ZPT80HN-B16	139
ZPT50HN-B10	49	ZPT100HN-A16	350
ZPT63HN-A16	149	ZPT100HN-B12	301
ZPT63HN-B8	115	ZPT100HN-B16	299
ZPT63HN-B10	114	ZPT125HN-A16	414
ZPT63HN-B12	112	ZPT125HN-B12	365
ZPT63HN-B16	110	ZPT125HN-B16	363

Add or deduct the mass shown in the table on the left for other materials.

How to Order

ZPT 40 H N - A14

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Pad type

H	Heavy duty
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Mounting thread diameter

(Vacuum entry port)

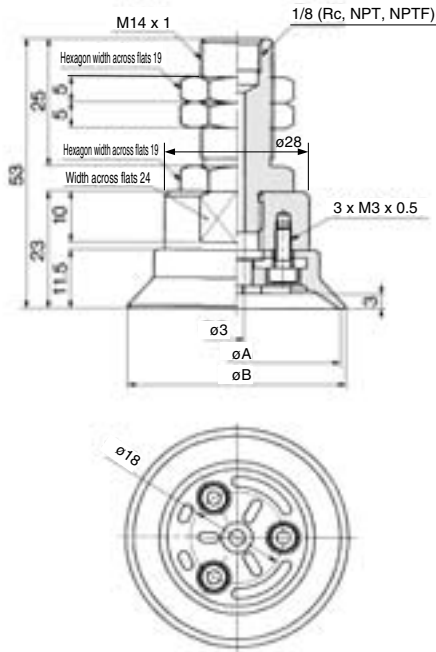
Mounting	Thread	Symbol	Thread dia. Port size	Pad dia.		
				40, 50	63, 80	100, 125
Male thread	M14 x 1	A14	Rc1/8	●	—	—
		A14N	NPT1/8	●	—	—
		A14F	NPFT1/8	●	—	—
	M16 x 1.5	A16	Rc1/8	—	●	●
		A16N	NPT1/8	—	●	●
		A16F	NPFT1/8	—	●	●
Female thread	B8	M8 x 1.25	●	●	—	
	B10	M10 x 1.5	●	●	—	
	B12	M12 x 1.75	—	●	●	
	B16	M16 x 1.5	—	●	●	

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

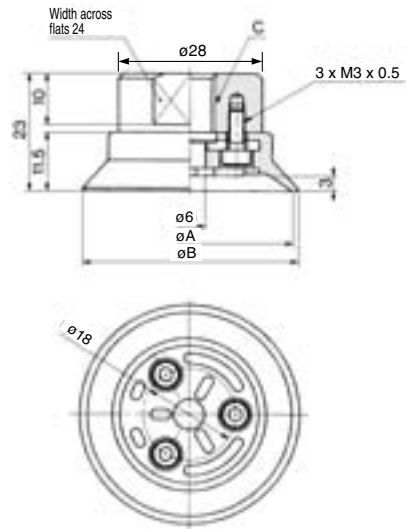
Vacuum Pad: Large/Heavy Duty Type Vertical Vacuum Entry: Without Buffer *Series ZPT*

ZPT⁴⁰/₅₀H□-A14 (Male thread)



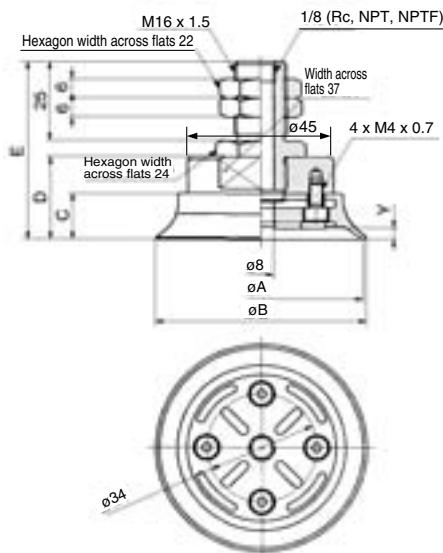
Model	A	B
ZPT40H□-A14	40	42
ZPT50H□-A14	50	52

ZPT⁴⁰/₅₀H□-B□ (Female thread)



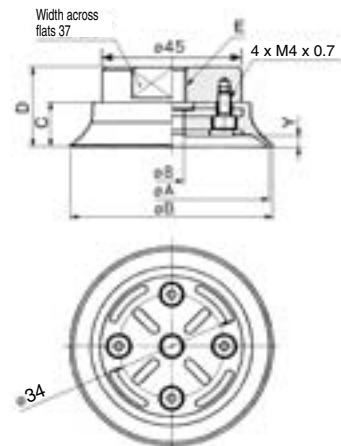
Model	A	B	C
ZPT40H□-B8	40	42	M8 x 1.25
ZPT40H□-B10	40	42	M10 x 1.5
ZPT50H□-B8	50	52	M8 x 1.25
ZPT50H□-B10	50	52	M10 x 1.5

ZPT⁶³/₈₀H□-A16 (Male thread)



Model	A	B	C	D	E	Y
ZPT63H□-A16	63	65	14.5	26	56	3.5
ZPT80H□-A16	80	82	16.5	28	58	4.5

ZPT⁶³/₈₀H□-B□ (Female thread)



Model	A	B	C	D	E	Y
ZPT63H□-B8	63	65	14.5	26	M8 x 1.25	3.5
ZPT63H□-B10	63	65	14.5	26	M10 x 1.5	3.5
ZPT63H□-B12	63	65	14.5	26	M12 x 1.75	3.5
ZPT63H□-B16	63	65	14.5	26	M16 x 1.5	3.5
ZPT80H□-B8	80	82	16.5	28	M8 x 1.25	4.5
ZPT80H□-B10	80	82	16.5	28	M10 x 1.5	4.5
ZPT80H□-B12	80	82	16.5	28	M12 x 1.75	4.5
ZPT80H□-B16	80	82	16.5	28	M16 x 1.5	4.5

- ZA
- ZX
- ZR
- ZM
- ZMA
- ZQ
- ZH
- ZU
- ZL
- ZY□
- ZF□
- ZP□
- SP
- ZCUK
- AMJ
- AMV
- AEP
- HEP

Related Equipment

Vacuum Pad: Large/Heavy Duty Type Vertical Vacuum Entry With Buffer

Series ZPT



Specifications

Mounting	Vacuum entry direction	Vertical	
	Connection	Male thread	
	Thread dia.	ø40, ø50	M18 x 1.5
		ø63, ø80	M18 x 1.5
ø100, ø125		M22 x 1.5	
Vacuum entry port		1/8" (Rc, NPT, NPTF)	

Buffer Specifications

Buffer dia. (mm)	ø40 to ø80	ø100, ø125		
Stroke (mm)	25, 50, 75	25, 50, 75, 100		
Spring reactive force	0 stroke	6.9 N	0 stroke	10 N
	Full stroke	11.8 N	Full stroke	15 N
Non-rotating specification	Rotating (J)			

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark ⊕), EPR (Black with mark ⊕)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass Difference for Other Materials

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	0	5	-1
ø50	-1	0	8	0
ø63	-2	0	16	0
ø80	-3	1	27	-1
ø100	-5	1	53	-1
ø125	-8	3	84	0

Mass (NBR)

Model	Mass	Model	Mass
ZPT40HNJ25-□01-A18	125	ZPT80HNJ50-□01-A18	251
ZPT40HNJ50-□01-A18	145	ZPT80HNJ75-□01-A18	272
ZPT40HNJ75-□01-A18	166	ZPT100HNJ25-□01-A22	489
ZPT50HNJ25-□01-A18	137	ZPT100HNJ50-□01-A22	529
ZPT50HNJ50-□01-A18	157	ZPT100HNJ75-□01-A22	574
ZPT50HNJ75-□01-A18	195	ZPT100HNJ100-□01-A22	613
ZPT63HNJ25-□01-A18	202	ZPT125HNJ25-□01-A22	553
ZPT63HNJ50-□01-A18	222	ZPT125HNJ50-□01-A22	593
ZPT63HNJ75-□01-A18	243	ZPT125HNJ75-□01-A22	638
ZPT80HNJ25-□01-A18	214	ZPT125HNJ100-□01-A22	677

Add or deduct the mass shown in the table on the left for order materials.

How to Order

ZPT 40 H N J 25 - B01 - A18

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Mounting thread

A18	M18 x 1.5 (ø40 to ø80)
A22	M22 x 1.5 (ø100, ø125)

Tightening torque (N·m)

Mounting thread dia.	Torque
M18 x 1.5	10.0 ±0.5
M22 x 1.5	10.0 ±0.5

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Pad type

H	Heavy duty
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Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Buffer stroke (Rotating)

Stroke	ø40	ø50	ø63	ø80	ø100	ø125
25	●	●	●	●	●	●
50	●	●	●	●	●	●
75	●	●	●	●	●	●
100	—	—	—	—	●	●

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

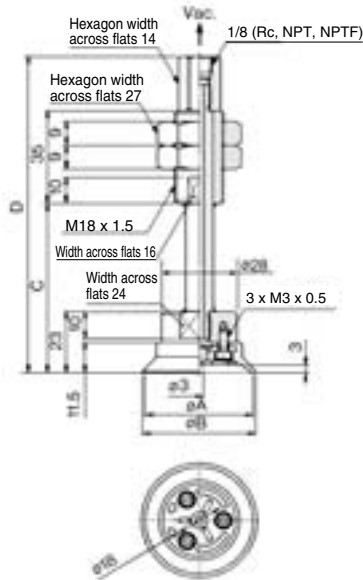
AEP

HEP

Related Equipment

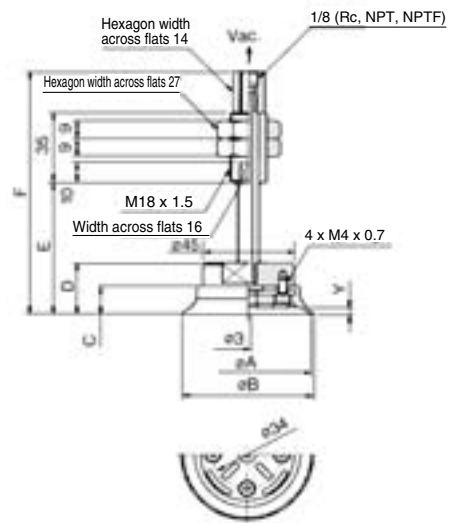
Series ZPT

ZPT_{40/50}H□J□-□01-A18 (With buffer)



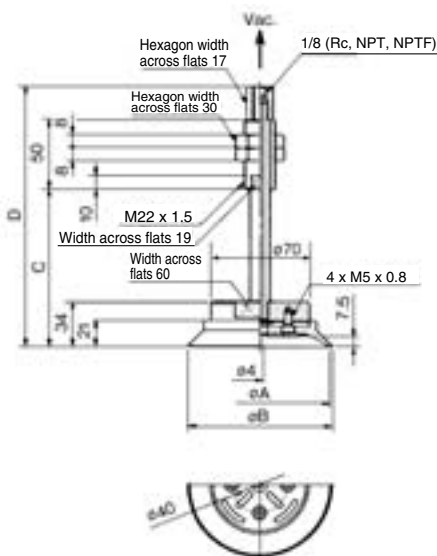
Model	A	B	C	D
ZPT40H□J25-□01-A18	40	42	63	118.5
ZPT40H□J50-□01-A18	40	42	98	153.5
ZPT40H□J75-□01-A18	40	42	134	189.5
ZPT50H□J25-□01-A18	50	52	63	118.5
ZPT50H□J50-□01-A18	50	52	98	153.5
ZPT50H□J75-□01-A18	50	52	134	189.5

ZPT_{63/80}H□J□-□01-A18 (With buffer)



Model	A	B	C	D	E	F	Y
ZPT63H□J25-□01-A18	63	65	14.5	26	66	121.5	3.5
ZPT63H□J50-□01-A18	63	65	14.5	26	101	156.5	3.5
ZPT63H□J75-□01-A18	63	65	14.5	26	137	192.5	3.5
ZPT80H□J25-□01-A18	80	83	16.5	28	68	123.5	4.5
ZPT80H□J50-□01-A18	80	83	16.5	28	103	158.5	4.5
ZPT80H□J75-□01-A18	80	83	16.5	28	139	194.5	4.5

ZPT_{100/125}H□J□-□01-A22 (With buffer)



Model	A	B	C	D
ZPT100H□J25-□01-A22	100	103	78	152
ZPT100H□J50-□01-A22	100	103	114	188
ZPT100H□J75-□01-A22	100	103	154	228
ZPT100H□J100-□01-A22	100	103	189	263
ZPT125H□J25-□01-A22	125	128	78	152
ZPT125H□J50-□01-A22	125	128	114	188
ZPT125H□J75-□01-A22	125	128	154	228
ZPT125H□J100-□01-A22	125	128	189	263

Vacuum Pad: Large/Heavy Duty Type Lateral Vacuum Entry Without Buffer

Series ZPX



Specifications

Mounting	Vacuum entry direction	Lateral	
	Connection	Female thread	
	Thread dia.	ø40, ø50	M8 x 1.25, M10 x 1.5
		ø63, ø80	M10 x 1.5, M12 x 1.75
ø100, ø125		M10 x 1.5, M12 x 1.75	
Vacuum entry port		1/8 (Rc, NPT, NPTF)	

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark $\text{\textcircled{F}}$), EPR (Black with mark $\text{\textcircled{E}}$)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass Difference for Other Materials

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	0	5	-1
ø50	-1	0	8	0
ø63	-2	0	16	0
ø80	-3	1	27	-1
ø100	-5	1	53	-1
ø125	-8	3	84	0

Mass (NBR)

Model	Mass	Model	Mass
ZPX40H□-□01-B8	148	ZPX100H□-□01-B10	418
ZPX40H□-□01-B10	150	ZPX100H□-□01-B12	414
ZPX50H□-□01-B8	160	ZPX125H□-□01-B10	482
ZPX50H□-□01-B10	158	ZPX125H□-□01-B12	478
ZPX63H□-□01-B10	229		
ZPX63H□-□01-B12	219		
ZPX80H□-□01-B10	258		
ZPX80H□-□01-B12	254		

Add or deduct the mass shown in the table on the left for order materials.

How to Order

ZPX 40 H N - B01 - B8

Pad diameter (mm)

40	ø40
50	ø50
63	ø63
80	ø80
100	ø100
125	ø125

Mounting thread

	ø40, ø50	ø63, ø80	ø100, ø125
B8	M8 x 1.25	—	—
B10	M10 x 1.5	●	●
B12	M12 x 1.75	—	●

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Pad type

H	Heavy duty
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Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

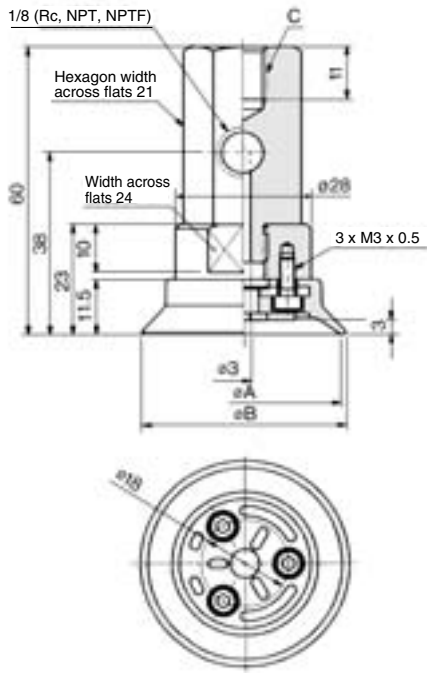
AEP

HEP

Related Equipment

Series ZPX

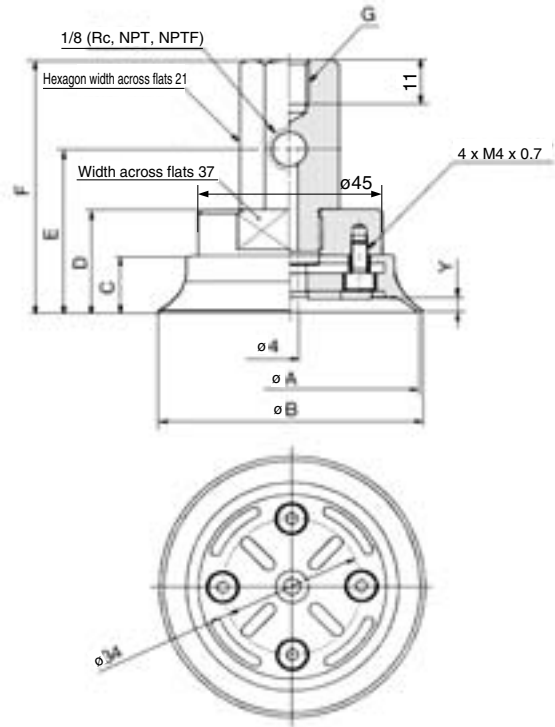
ZPX₄₀⁴⁰H□-□01-B□ (Female thread)



(mm)

Model	A	B	C
ZPX40H□-□01-B8	40	42	M8 x 1.25
ZPX40H□-□01-B10	40	42	M10 x 1.5
ZPX50H□-□01-B8	50	52	M8 x 1.25
ZPX50H□-□01-B10	50	52	M10 x 1.5

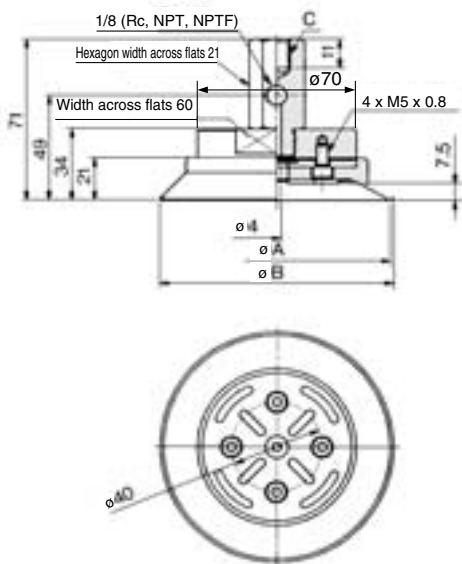
ZPX₆₃⁶³H□-□01-B□ (Female thread)



(mm)

Model	A	B	C	D	E	F	Y	G
ZPX63H□-□01-B10	63	65	14.5	26	41	63	3.5	M10 x 1.5
ZPX63H□-□01-B12	63	65	14.5	26	41	63	3.5	M12 x 1.75
ZPX80H□-□01-B10	80	82	16.5	28	43	65	4.5	M10 x 1.5
ZPX80H□-□01-B12	80	82	16.5	28	43	65	4.5	M12 x 1.75

ZPX₁₀₀¹⁰⁰H□-□01-B□ (Female thread)



(mm)

Model	A	B	C
ZPX100H□-□01-B10	100	103	M10 x 1.5
ZPX100H□-□01-B12	100	103	M12 x 1.75
ZPX125H□-□01-B10	125	128	M10 x 1.5
ZPX125H□-□01-B12	125	128	M12 x 1.75

Vacuum Pad: Large/Heavy Duty Type Lateral Vacuum Entry With Buffer

Series ZPX



Specifications

Mounting	Vacuum entry direction	Lateral	
	Connection	Male thread	
	Thread dia.	ø40, ø50	M18 x 1.5
		ø63, ø80	M18 x 1.5
ø100, ø125		M22 x 1.5	
Vacuum entry port		1/8 (Rc, NPT, NPTF)	

Buffer Specifications

Buffer dia. (mm)	ø40 to ø80	ø100, ø125		
Stroke (mm)	25, 50, 75	25, 50, 75, 100		
Spring reactive force	0 stroke	6.9 N	0 stroke	10 N
	Full stroke	11.8 N	Full stroke	15 N
Non-rotating specification	Rotating (J)			

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark (F)), EPR (Black with mark (E))
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass Difference for Other Materials

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	0	5	-1
ø50	-1	0	8	0
ø63	-2	0	16	0
ø80	-3	1	27	-1
ø100	-5	1	53	-1
ø125	-8	3	84	0

Mass (NBR)

Model	Mass	Model	Mass
ZPX40HNJ25-□01-A18	266	ZPX80HNJ50-□01-A18	401
ZPX40HNJ50-□01-A18	287	ZPX80HNJ75-□01-A18	424
ZPX40HNJ75-□01-A18	310	ZPX100HNJ25-□01-A22	638
ZPX50HNJ25-□01-A18	278	ZPX100HNJ50-□01-A22	677
ZPX50HNJ50-□01-A18	299	ZPX100HNJ75-□01-A22	721
ZPX50HNJ75-□01-A18	322	ZPX100HNJ100-□01-A22	760
ZPX63HNJ25-□01-A18	351	ZPX125HNJ25-□01-A22	702
ZPX63HNJ50-□01-A18	372	ZPX125HNJ50-□01-A22	741
ZPX63HNJ75-□01-A18	395	ZPX125HNJ75-□01-A22	785
ZPX80HNJ25-□01-A18	380	ZPX125HNJ100-□01-A22	824

Add or deduct the mass shown in the table on the left for order materials.

How to Order

ZPX 40 H N J 25 - B01 - A18

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Mounting thread

A18	M18 x 1.5 (ø40 to ø80)
A22	M22 x 1.5 (ø100, ø125)

Tightening torque (N·m)

Mounting thread dia.	Torque
M18 x 1.5	10.0 ± 0.5
M22 x 1.5	10.0 ± 0.5

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Buffer stroke (Rotating)

Stroke	ø40	ø50	ø63	ø80	ø100	ø125
25	●	●	●	●	●	●
50	●	●	●	●	●	●
75	●	●	●	●	●	●
100	—	—	—	—	●	●

Pad type

H	Heavy duty
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Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

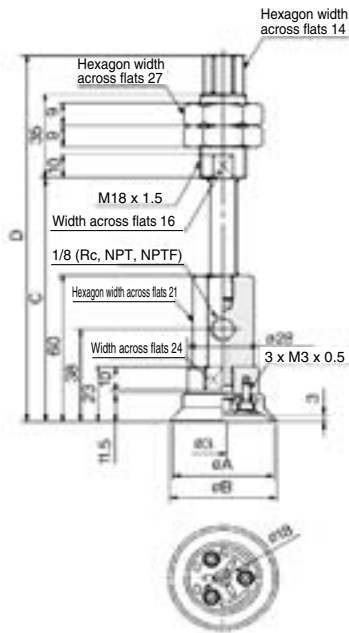
AEP

HEP

Related Equipment

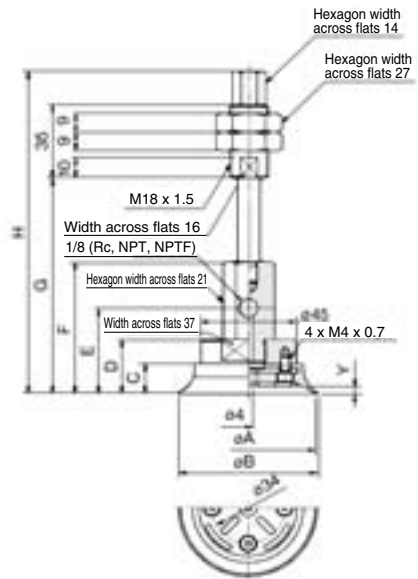
Series ZPX

ZPX₄₀⁵⁰H□J□-□01-A18 (With buffer)



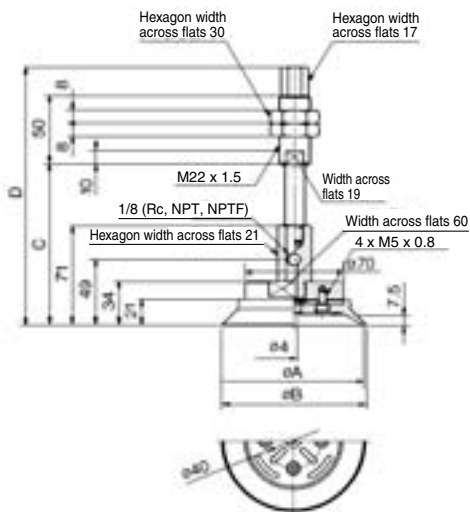
Model	A	B	C	D
ZPX40H□J25-□01-A18	40	42	100	151
ZPX40H□J50-□01-A18	40	42	135	186
ZPX40H□J75-□01-A18	40	42	171	222
ZPX50H□J25-□01-A18	50	52	100	151
ZPX50H□J50-□01-A18	50	52	135	186
ZPX50H□J75-□01-A18	50	52	171	222

ZPX₆₃⁸⁰H□J□-□01-A18 (With buffer)



Model	A	B	C	D	E	F	G	H	Y
ZPX63H□J25-□01-A18	63	65	14.5	26	41	63	103	154	3.5
ZPX63H□J50-□01-A18	63	65	14.5	26	41	63	136	189	3.5
ZPX63H□J75-□01-A18	63	65	14.5	26	41	63	172	225	3.5
ZPX80H□J25-□01-A18	80	82	16.5	28	43	65	105	156	4.5
ZPX80H□J50-□01-A18	80	82	16.5	28	43	65	138	191	4.5
ZPX80H□J75-□01-A18	80	82	16.5	28	43	65	174	227	4.5

ZPX₁₀₀¹²⁵H□J□-□01-A22 (With buffer)

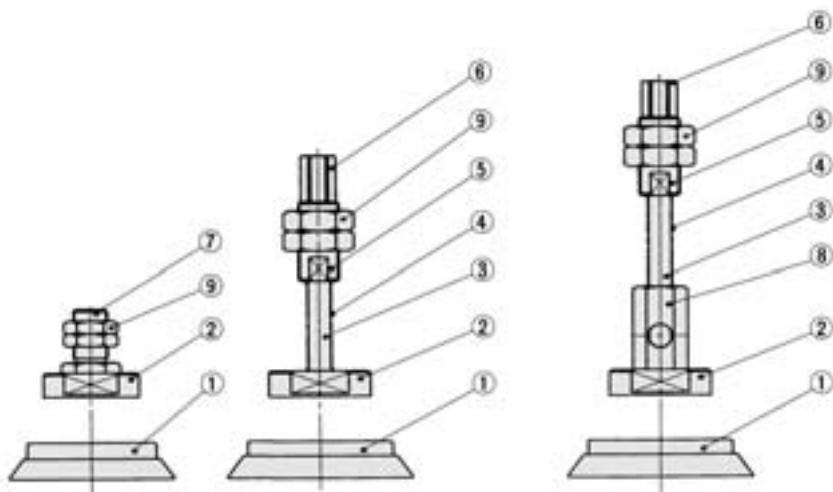


Model	A	B	C	D
ZPX100H□J25-□01-A22	100	103	115	186
ZPX100H□J50-□01-A22	100	103	151	222
ZPX100H□J75-□01-A22	100	103	191	262
ZPX100H□J100-□01-A22	100	103	226	297
ZPX125H□J25-□01-A22	125	128	115	186
ZPX125H□J50-□01-A22	125	128	151	222
ZPX125H□J75-□01-A22	125	128	191	262
ZPX125H□J100-□01-A22	125	128	226	297

Construction

Series ZPT

Series ZPX



Component Parts

No.	Description	Material	Surface treatment
1	Pad	NBR, Silicone rubber, Urethane rubber, Fluororubber, EPR	—
2	Adapter plate	Aluminum	—
3	Piston rod	Carbon steel	Hard chrome plated
4	Spring	Stainless steel	—
5	Buffer body	Aluminum	—
6	Buffer adapter	Brass	Electroless nickel plated
7	Adapter A	Brass	Electroless nickel plated
8	X type adaptor	Brass	Electroless nickel plated
9	Mounting nut	Rolled steel	Nickel plated

Replacement Parts/Pad Unit

How to Order Pad Unit

ZP 40 H N

Pad dia. (mm) → Material → Pad type

Pad dia. (mm)	Material	Pad type
40	N	H
50	S	
63	U	
80	F	
100	E	
125		

Material Legend:

Material	Description
N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Pad type Legend:

Pad type	Description
H	Heavy duty

Pad Unit Mass

(NBR) (g)

Model	Mass
ZP40HN	15
ZP50HN	27
ZP63HN	57
ZP80HN	86
ZP100HN	160
ZP125HN	224

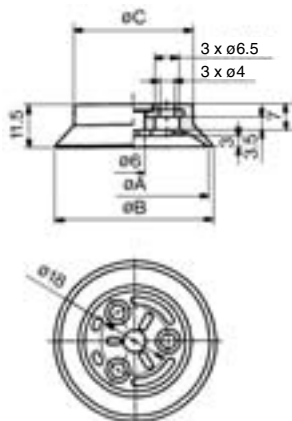
Mass Difference for Other Materials (g)

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	0	5	-1
ø50	-1	0	8	0
ø63	-2	0	16	0
ø80	-3	1	27	-1
ø100	-5	1	53	-1
ø125	-8	3	84	0

Add NBR mass to the table on the right for other materials.

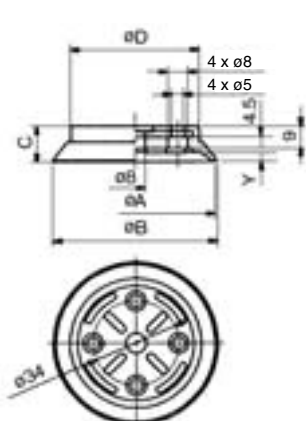
Dimensions

ZP₄₀⁵⁰H □



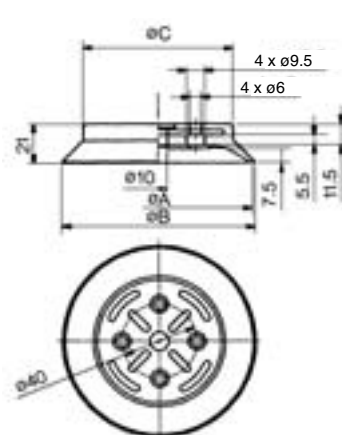
Model	A	B	C
ZP40H □	40	42	32
ZP50H □	50	52	42

ZP₆₃⁸⁰H □



Model	A	B	C	D	Y
ZP63H □	63	65	14.5	50	3.5
ZP80H □	80	82	16.5	61	4.5

ZP₁₀₀¹²⁵H □

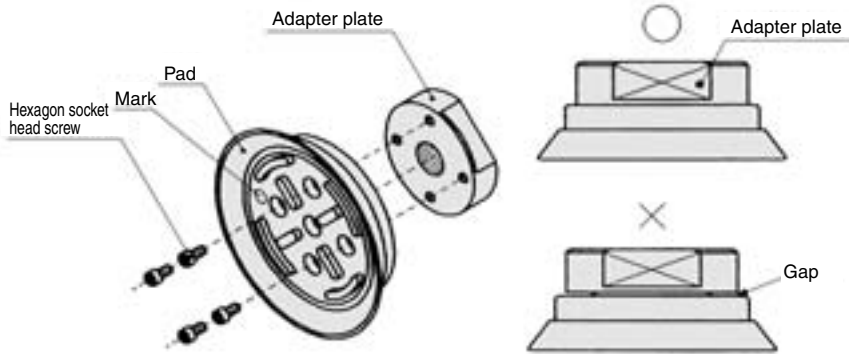


Model	A	B	C
ZP100H □	100	103	80
ZP125H □	125	128	104

- ZA
- ZX
- ZR
- ZM
- ZMA
- ZQ
- ZH
- ZU
- ZL
- ZY □
- ZF □
- ZP □
- SP
- ZCUK
- AMJ
- AMV
- AEP
- HEP
- Related Equipment

Series ZPT/ZPX

How to Replace the Pad



Remove bolts with a hex. key wrench from the pad underside. Tighten new pad with the bolts ensuring there is no gap between the adapter plate and the pad.

How to Distinguish Different Pad Materials

Check for the indicator mark on the pad's interior surface as shown in the figure at left.

Material	Color	Mark
NBR	Black	—
Silicon rubber	White	—
Urethane rubber	Brown	—
Fluoro rubber	Black	Ⓣ
EPR	Black	ⓔ

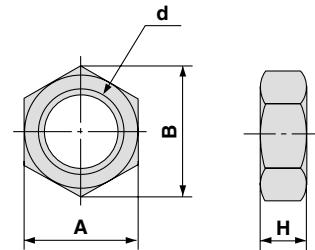
Replacement Parts/Mounting Nut

How to Order

ZPNA - M16

● Mounting thread

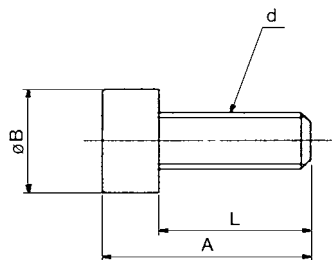
M14	M14 x 1
M16	M16 x 1.5
M18	M18 x 1.5
M22	M22 x 1.5



Model	A	B	d	H
ZPNA-M14	19	21.9	M14 x 1	5
ZPNA-M16	22	25.4	M16 x 1.5	6
ZPNA-M18	27	31.2	M18 x 1.5	9
ZPNA-M22	30	34.6	M22 x 1.5	8

Bolts

Dimensions



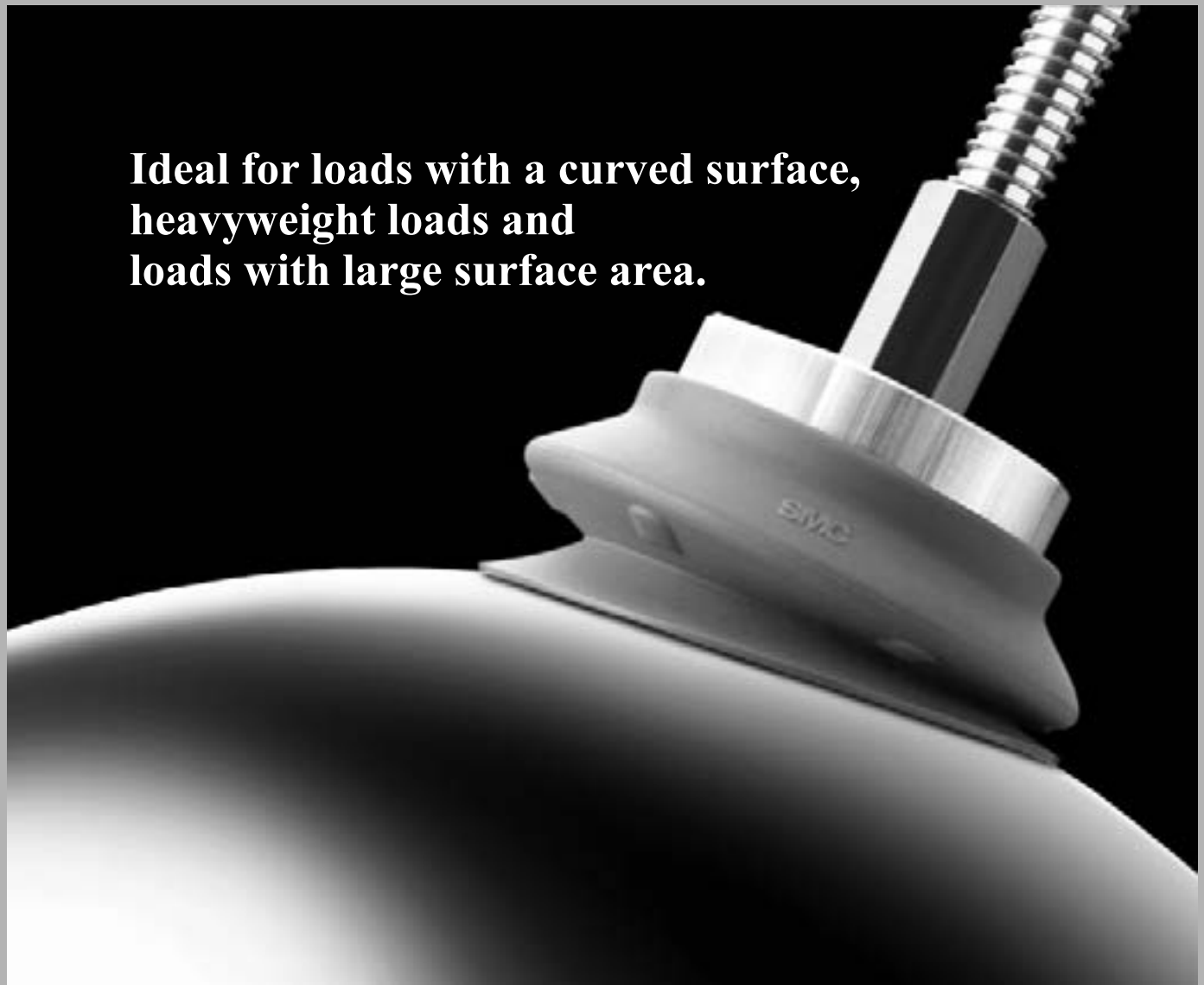
A	B	d	L
11	5.5	M3 x 0.5	8
12	7	M4 x 0.7	8
15	8.5	M5 x 0.8	10

Vacuum Pad: Large Size Bellows Type

Series ZPT/ZPX

ø40, ø50, ø63, ø80, ø100, ø125

Ideal for loads with a curved surface,
heavyweight loads and
loads with large surface area.



ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

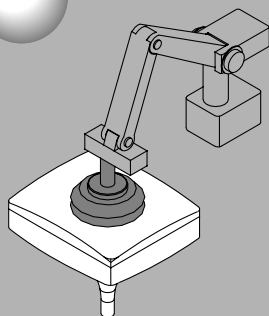
AMV

AEP

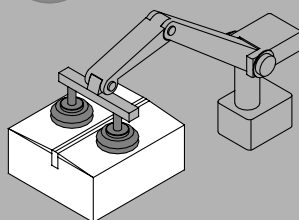
HEP

Related
Equipment

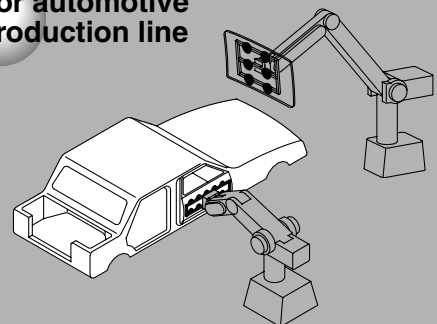
For transfer of CRT



For transfer of
cardboard box



For automotive
production line

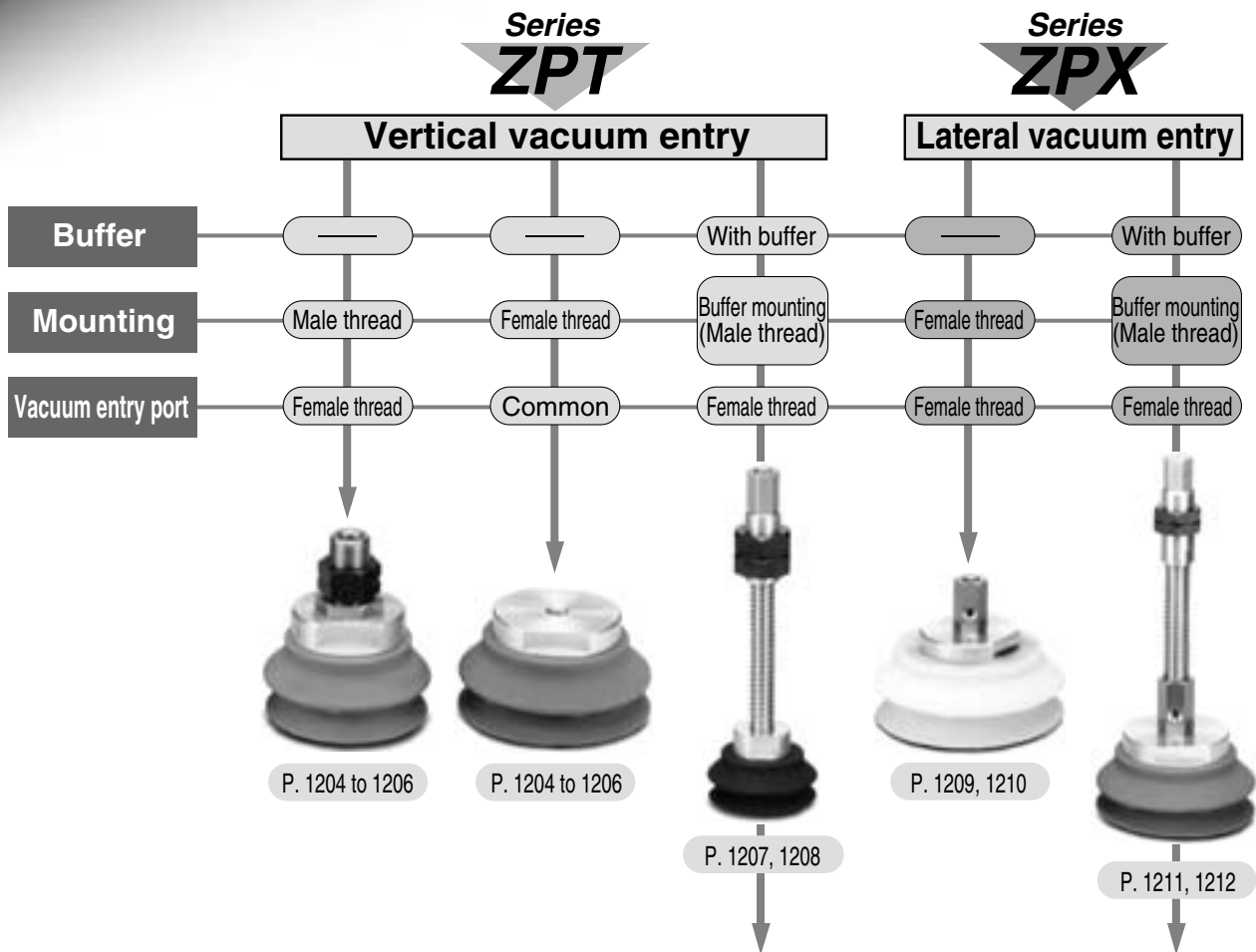


Vacuum Pad: Large Size Bellows Type

Series ZPT/ZPX

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

Pad material: NBR, Silicone rubber, Urethane rubber, Fluoro rubber, EPR



		Buffer stroke					
		Pad dia.					
		$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$	$\phi 125$
Buffer stroke (mm)	25	●	●	●	●	●	●
	50	●	●	●	●	●	●
	75	●	●	●	●	●	●
	100	—	—	—	—	●	●

Pad Material and Characteristics

◎: Little or no influence ○: Can be used depending on conditions. X: Not suitable

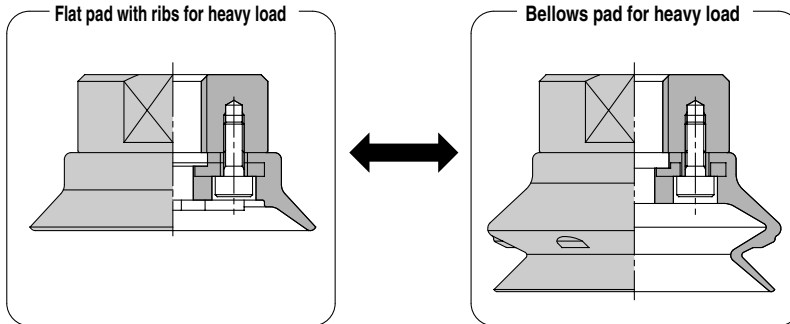
Characteristics	Durometer HS ($\pm 5^\circ$)	Operating temperature range ($^\circ\text{C}$)	Oil resistance gasoline	Oil resistance benzol	Base resistance	Acid resistance	Weatherability	Ozone resistance	Abrasion resistance	Waterproof	Solvent resistance (Benzene, toluene)
NBR	50°	0 to 120	◎	×	○	○	×	×	◎	○	×
Silicon rubber	50°	-30 to 200	×	×	○	×	◎	◎	×	○	×
Urethane rubber	60°	0 to 60	◎	×	×	×	○	◎	◎	×	×
Fluoro rubber	60°	0 to 250	◎	◎	×	◎	◎	◎	○	◎	◎
EPR	50°	-20 to 150	×	×	◎	○	◎	◎	○	◎	×

The above table covers only general characteristics of subject rubber materials. Pad materials used by SMC pass the nominal JIS material standards; however, actual performance depends on operating conditions.



Interchangeable with flat pad with ribs for heavy loads.

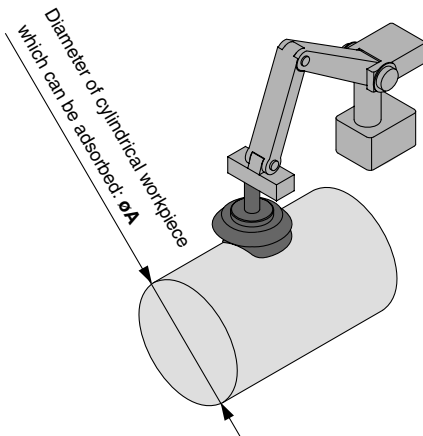
When changing to a different shape pad due to load change, the pad can be easily interchanged.



Possible combination — Same pad diameter, $\phi 40$ and $\phi 50$, $\phi 63$ and $\phi 80$, $\phi 100$ and $\phi 125$



Possible adsorption to cylindrical loads with easy fit to the load shape.



* Pushing force for adsorption is almost equivalent to return force of buffer spring.

Table (1) Diameter of Cylindrical Workpiece Which can be Adsorbed. (Reference value)

Model	Dia. of cylindrical workpiece which can be adsorbed: ϕA ⁽¹⁾
ZP 40HB□	80 or more
50HB□	100 or more
63HB□	120 or more
80HB□	160 or more
100HB□	180 or more
125HB□	230 or more

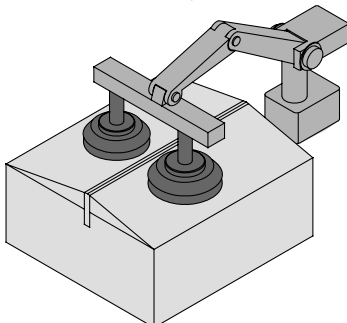
Note 1) Please consult with SMC when requiring a diameter smaller than shown in table.

Note 2) Regard values mentioned above as reference only, since actual values may depend on operating conditions.

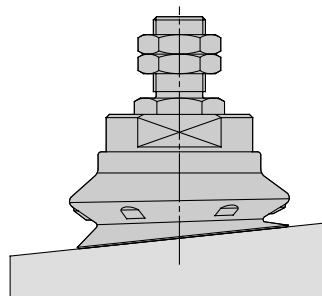


Pad shape permits adsorption to sloped surfaces.

- When a workpiece could be deformed during adsorption or transportation. (Example of a cardboard box)



- When the adsorption surface of a workpiece is slanted. (Maximum angle: 5°*)



* Regard values mentioned above as reference only, since actual values may depend on operating conditions.

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

AEP

HEP

Related Equipment

Vacuum Pad: Large Size Bellows Type Vertical Vacuum Entry Without Buffer

Series ZPT

RoHS



Specifications

Mounting	Vacuum entry direction		Vertical	
	Connection		Male thread	Female thread
	Thread dia.	ø40, ø50	M14 x 1	M8 x 1.25, M10 x 1.5
		ø63, ø80	M16 x 1.5	M8 x 1.25, M10 x 1.5, M12 x 1.75, M16 x 1.5
	ø100, ø125	M16 x 1.5	M12 x 1.75, M16 x 1.5	
Vacuum entry port			1/8 (Rc, NPT, NPFT)	Use the mounting port

Pad Type

Pad diameter (mm)	40, 50, 63, 80, 100, 125
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark ⊕), EPR (Black with mark ⊖)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass

NBR		(g)	
Model	Mass	Model	Mass
ZPT40HBN-A14	73	ZPT 80HBN-A16	195
-B 8	40	-B 8	161
-B10	39	-B10	160
ZPT50HBN-A14	89	-B12	158
-B 8	56	-B16	156
-B10	55	ZPT100HBN-A16	396
ZPT63HBN-A16	155	-B12	347
-B 8	121	-B16	345
-B10	120	ZPT125HBN-A16	580
-B12	118	-B12	531
-B16	116	-B16	529

Mass Difference for Other Materials

Add NBR mass to below table for other materials. (g)

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	+1	+10	0
ø50	-2	+1	+19	0
ø63	-3	+2	+37	0
ø80	-6	+2	+61	0
ø100	-12	+4	+121	-1
ø125	-22	+7	+228	-3

How to Order

ZPT 40 HB N - A14

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Pad type

HB	Large bellows pad
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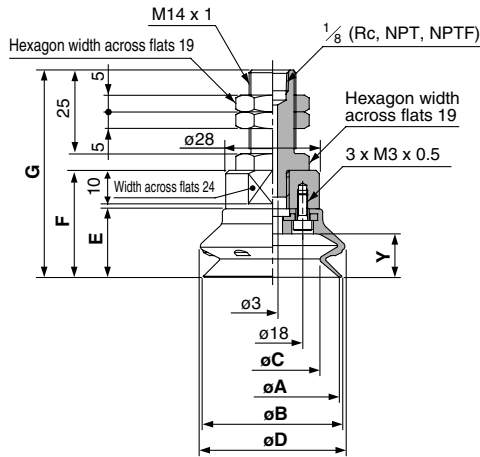
Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Mounting thread diameter
(Vacuum entry)

Mounting		Symbol	Thread dia. Port size	Pad diameter		
				40, 50	63, 80	100, 125
Male thread	M14 x 1	A14	Rc 1/8	●	—	—
		A14N	NPT 1/8	●	—	—
		A14F	NPFT 1/8	●	—	—
	M16 x 1.5	A16	Rc 1/8	—	●	●
		A16N	NPT 1/8	—	●	●
		A16F	NPFT 1/8	—	●	●
Female thread	B8	M8 x 1.25	●	●	—	
	B10	M10 x 1.5	●	●	—	
	B12	M12 x 1.75	—	●	●	
	B16	M16 x 1.5	—	●	●	

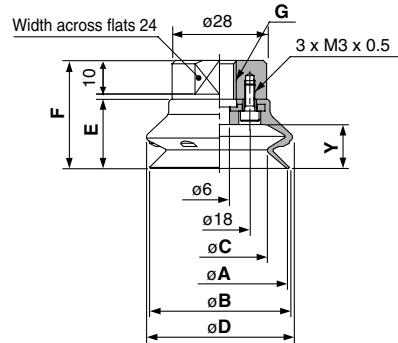
ZPT⁴⁰₅₀HB□-A14 (Male thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT40HB□-A14	40	41	28	43	20.5	32	62	13
ZPT50HB□-A14	50	52	36	54	24	35.5	65.5	16.5

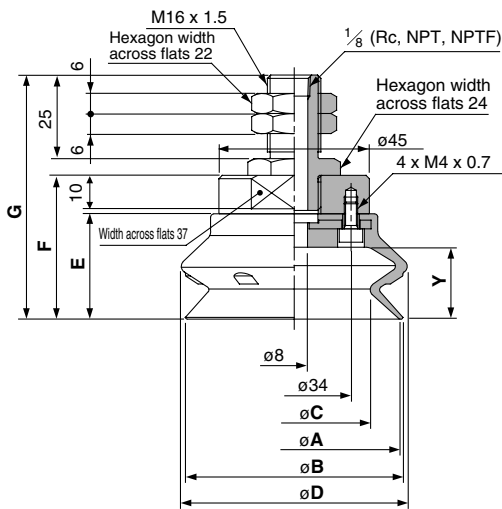
ZPT⁴⁰₅₀HB□-B□ (Female thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT40HB□-B 8	40	41	28	43	20.5	32	M8 x 1.25	13
M10 x 1.5								
ZPT50HB□-B 8	50	52	36	54	24	35.5	M8 x 1.25	16.5
M10 x 1.5								

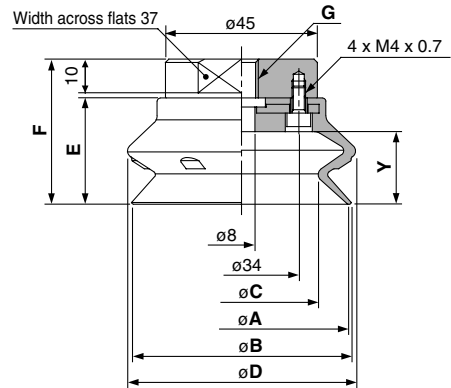
ZPT⁶³₈₀HB□-A16 (Male thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT63HB□-A16	63	65	46	68	31.5	43	73	21.5
ZPT80HB□-A16	80	83	58	85	37	48.5	78.5	27.5

ZPT⁶³₈₀HB□-B□ (Female thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT63HB□-B 8	63	65	46	68	31.5	43	M8 x 1.25	21.5
M10 x 1.5								
M12 x 1.75								
M16 x 1.5								
ZPT80HB□-B 8	80	83	58	85	37	48.5	M8 x 1.25	27.5
M10 x 1.5								
M12 x 1.75								
M16 x 1.5								

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

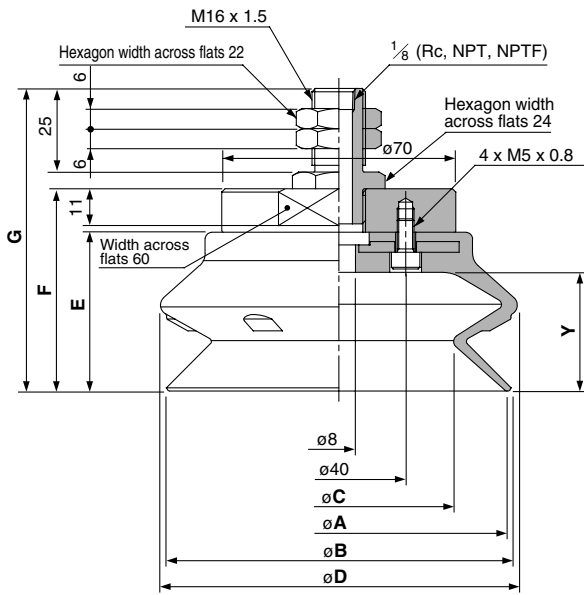
AEP

HEP

Related Equipment

Series ZPT

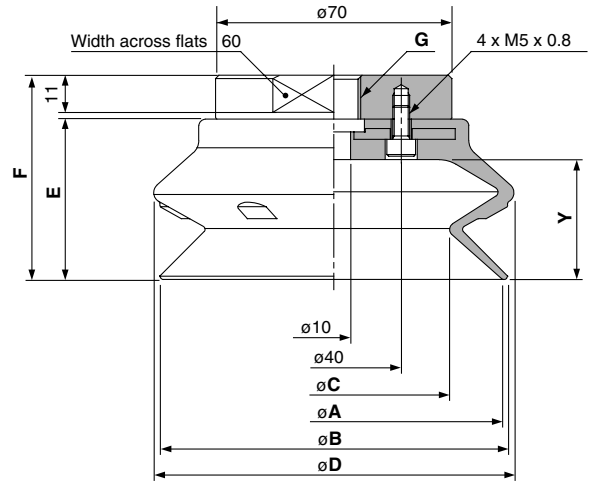
ZPT₁₀₀¹⁰⁰HB□-A16 (Male thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT100HB□-A16	100	103	69	107	47.5	60.5	90.5	35.5
ZPT125HB□-A16	125	129	89	135	56	69	99	44

ZPT₁₀₀¹⁰⁰HB□-B□ (Female thread)



Dimensions

Model	A	B	C	D	E	F	G	Y
ZPT100HB□-B12	100	103	69	107	47.5	60.5	M12 x 1.75	35.5
M16 x 1.5								
ZPT125HB□-B12	125	129	89	135	56	69	M12 x 1.75	44
M16 x 1.5								

Vacuum Pad: Large Size Bellows Type Vertical Vacuum Entry With Buffer

Series ZPT

RoHS



Specifications

Mounting Thread dia.	Vacuum entry direction	Vertical
	Connection	Male thread
	ø40, ø50	M18 x 1.5
	ø63, ø80	M18 x 1.5
	ø100, ø125	M22 x 1.5
Vacuum entry port		1/8 (Rc, NPT, NPTF)

Buffer Specifications

Buffer dia. (mm)	ø40 to ø80		ø100, ø125	
Stroke (mm)	25, 50, 75		25, 50, 75, 100	
Spring reactive force	0 stroke	6.9 N	0 stroke	10 N
	Full stroke	11.8 N	Full stroke	15 N
Non-rotating specification	Rotating (J)			

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicone rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark ⊕), EPR (Black with mark ⊕)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass

NBR		(g)	
Model	Mass	Model	Mass
ZPT40HBNJ25-□01-A18	127	ZPT 80HBNJ50-□01-A18	268
50-□01-A18	147	75-□01-A18	289
75-□01-A18	168	ZPT100HBNJ25-□01-A22	535
ZPT50HBNJ25-□01-A18	143	50-□01-A22	575
50-□01-A18	163	75-□01-A22	620
75-□01-A18	201	100-□01-A22	659
ZPT63HBNJ25-□01-A18	208	ZPT125HBNJ25-□01-A22	719
50-□01-A18	228	50-□01-A22	759
75-□01-A18	249	75-□01-A22	804
ZPT80HBNJ25-□01-A18	231	100-□01-A22	843

Mass Difference for Other Materials
Add NBR mass to below table for other materials.

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	+1	+10	0
ø50	-2	+1	+19	0
ø63	-3	+2	+37	0
ø80	-6	+2	+61	0
ø100	-12	+4	+121	-1
ø125	-22	+7	+228	-3

How to Order

ZPT 40 HB N J 25 - B01 - A18

Pad diameter (mm)

40	ø40
50	ø50
63	ø63
80	ø80
100	ø100
125	ø125

Pad type

HB	Large bellows pad
----	-------------------

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Buffer stroke (Rotating)

Stroke	ø40	ø50	ø63	ø80	ø100	ø125
25	●	●	●	●	●	●
50	●	●	●	●	●	●
75	●	●	●	●	●	●
100	—	—	—	—	●	●

Mounting thread

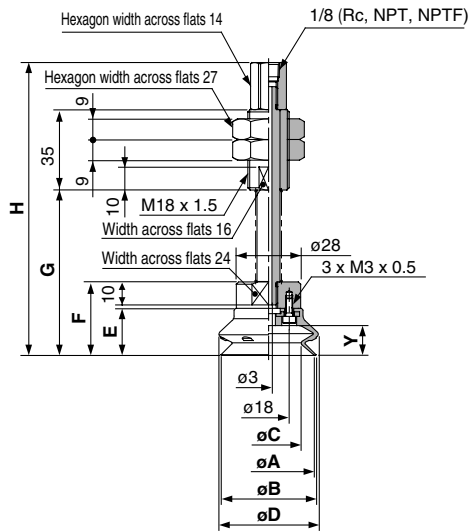
A18	M18 x 1.5 (ø40 to ø80)
A22	M22 x 1.5 (ø100, ø125)

Tightening torque (N·m)

Mounting thread dia.	Torque
M18 x 1.5	10.0 ±0.5
M22 x 1.5	10.0 ±0.5

Series ZPT

ZPT₅₀⁴⁰HB□J□-B01-A18 (Male thread)

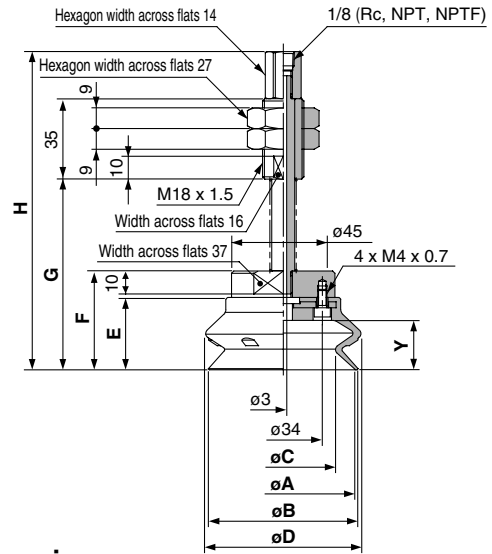


Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	Y
ZPT40HB□J25-□01-A18							72	127.5	
50-□01-A18	40	41	28	43	20.5	32	107	162.5	13
75-□01-A18							143	198.5	
ZPT50HB□J25-□01-A18							75.5	131	
50-□01-A18	50	52	36	54	24	35.5	110.5	166	16.5
75-□01-A18							146.5	202	

ZPT₈₀⁶³HB□J□-B01-A18 (Male thread)

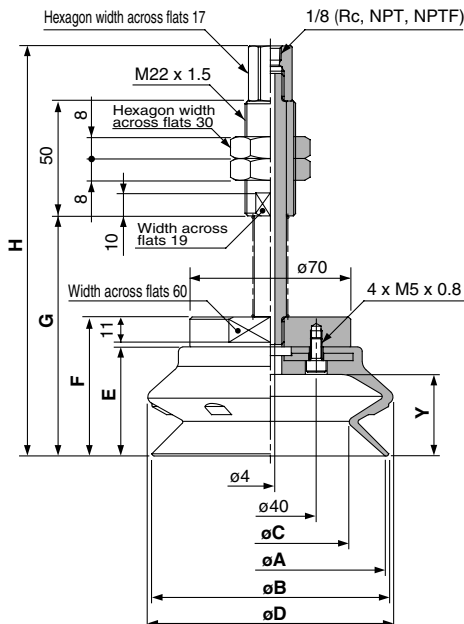


Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	Y
ZPT63HB□J25-□01-A18							83	138.5	
50-□01-A18	63	65	46	68	31.5	43	118	173.5	21.5
75-□01-A18							154	209.5	
ZPT80HB□J25-□01-A18							88.5	144	
50-□01-A18	80	83	58	85	37	48.5	123.5	179	27.5
75-□01-A18							159.5	215	

ZPT₁₂₅¹⁰⁰HB□J□-B01-A22 (Male thread)



Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	Y
ZPT100HB□J25-□01-A22							104.5	178.5	
50-□01-A22	100	103	69	107	47.5	60.5	140.5	214.5	35.5
75-□01-A22							180.5	254.5	
100-□01-A22							215.5	289.5	
ZPT125HB□J25-□01-A22							113	187	
50-□01-A22	125	129	89	135	56	69	149	223	44
75-□01-A22							189	263	
100-□01-A22							224	298	

Vacuum Pad: Large Size Bellows Type Lateral Vacuum Entry Without Buffer Series ZPX



Specifications

Mounting	Vacuum entry direction	Lateral	
	Connection	Female thread	
	Thread dia.	ø40, ø50	M8 x 1.25, M10 x 1.5
		ø63, ø80	M10 x 1.5, M12 x 1.75
ø100, ø125		M10 x 1.5, M12 x 1.75	
Vacuum entry port		1/8 (Rc, NPT, NPTF)	

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicone rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark ☉), EPR (Black with mark ☉)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass

NBR		(g)	
Model	Mass	Model	Mass
ZPX40HBN-□01-B 8	150	ZPX 80HBN-□01-B10	275
-B10	152	-B12	271
ZPX50HBN-□01-B 8	166	ZPX100HBN-□01-B10	464
-B10	164	-B12	460
ZPX63HBN-□01-B10	235	ZPX125HBN-□01-B10	648
-B12	225	-B12	644

Mass Difference for Other Materials

Add NBR mass to below table for other materials.

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	+1	+10	0
ø50	-2	+1	+19	0
ø63	-3	+2	+37	0
ø80	-6	+2	+61	0
ø100	-12	+4	+121	+1
ø125	-22	+7	+228	+3

How to Order

ZPX **40** **HB** **N** - **B01** - **B10**

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Pad type

HB	Large bellows pad
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Mounting thread

		ø40, ø50	ø63, ø80	ø100, ø125
B 8	M8 x 1.25	●	—	—
B10	M10 x 1.5	●	●	●
B12	M12 x 1.75	—	●	●

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

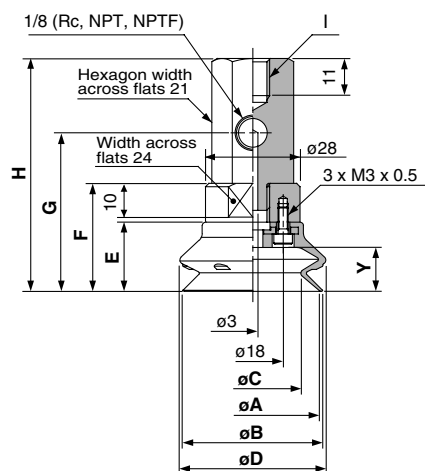
AEP

HEP

Related Equipment

Series ZPX

ZPX₄₀⁵⁰HB□-B01-B□ (Female thread)

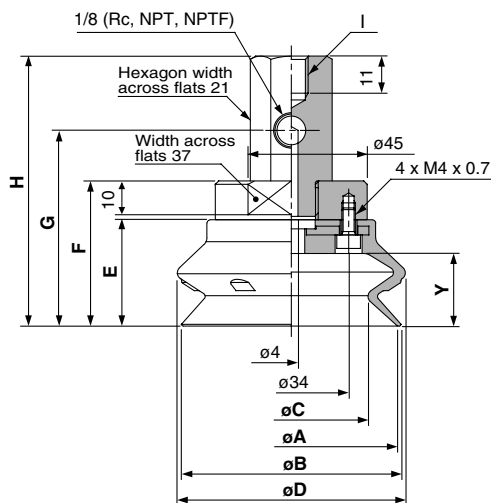


Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	I	Y
ZPX40HB□-□01-B 8	40	41	28	43	20.5	32	47	69	M8 x 1.25	13
-B10									M10 x 1.5	
ZPX50HB□-□01-B 8	50	52	36	54	24	35.5	50.5	72.5	M8 x 1.25	16.5
-B10									M10 x 1.5	

ZPX₆₅⁸⁰HB□-B01-B□ (Female thread)

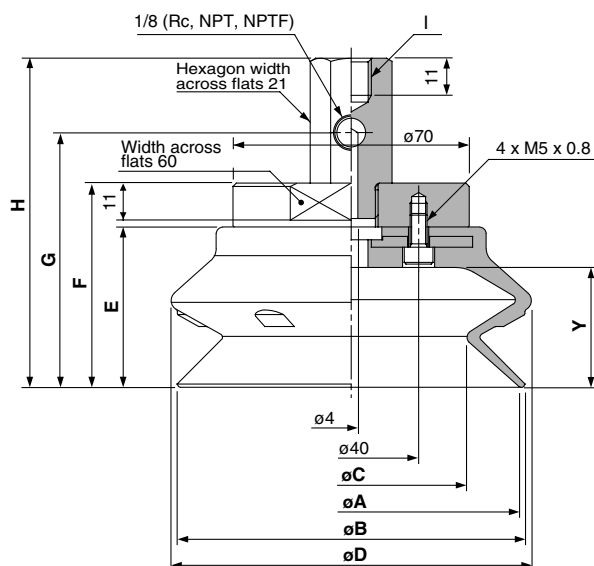


Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	I	Y
ZPX63HB□-□01-B10	63	65	46	68	31.5	43	58	80	M10 x 1.5	21.5
-B12									M12 x 1.75	
ZPX80HB□-□01-B10	80	83	58	85	37	48.5	63.5	85.5	M10 x 1.5	27.5
-B12									M12 x 1.75	

ZPX₁₀₀¹²⁵HB□-B01-B□ (Female thread)



Dimensions

(mm)

Model	A	B	C	D	E	F	G	H	I	Y
ZPX100HB□-□01-B10	100	103	69	107	47.5	60.5	75.5	97.5	M10 x 1.5	35.5
-B12									M12 x 1.75	
ZPX125HB□-□01-B10	125	129	89	135	56	69	84	106	M10 x 1.5	44
-B12									M12 x 1.75	

Vacuum Pad: Large Size Bellows Type Lateral Vacuum Entry: With Buffer

Series ZPX



Specifications

Mounting Thread dia.	Vacuum entry direction	Lateral
	Connection	Male thread
	ø40, ø50	M18 x 1.5
	ø63, ø80	M18 x 1.5
	ø100, ø125	M22 x 1.5
Vacuum entry port		1/8 (Rc, NPT, NPTF)

Buffer Specifications

Buffer dia. (mm)	ø40 to ø80		ø100, ø125	
Stroke (mm)	25, 50, 75		25, 50, 75, 100	
Spring reactive force	0 stroke	6.9 N	0 stroke	10 N
	Full stroke	11.8 N	Full stroke	15 N
Non-rotating specification	Rotating (J)			

Pad Type

Pad diameter (mm)	ø40, ø50, ø63, ø80, ø100, ø125
Material (Color)	NBR (Black), Silicone rubber (White), Urethane rubber (Brown), Fluororubber (Black with mark ☉), EPR (Black with mark ☉)
Durometer	NBR/Silicone rubber/EPR (50°), Urethane/Fluororubber (60°)

Mass

NBR

Model	Mass	Model	Mass
ZPX40HBNJ25-□01-A18	268	ZPX 80HBNJ50-□01-A18	418
50-□01-A18	289	75-□01-A18	441
75-□01-A18	312	ZPX100HBNJ25-□01-A22	684
ZPX50HBNJ25-□01-A18	284	50-□01-A22	723
50-□01-A18	305	75-□01-A22	767
75-□01-A18	328	100-□01-A22	806
ZPX63HBNJ25-□01-A18	357	ZPX125HBNJ25-□01-A22	868
50-□01-A18	378	50-□01-A22	907
75-□01-A18	401	75-□01-A22	951
ZPX80HBNJ25-□01-A18	397	100-□01-A22	990

Mass Difference for Other Materials

Add NBR mass to below table for other materials.

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	+1	+10	0
ø50	-2	+1	+19	0
ø63	-3	+2	+37	0
ø80	-6	+2	+61	0
ø100	-12	+4	+121	-1
ø125	-22	+7	+228	-3

How to Order

ZPX **40** **HB** **N** **J** **25** - **B01** - **A18**

Pad diameter (mm)

40	40
50	50
63	63
80	80
100	100
125	125

Pad type

HB	Large bellows pad
----	-------------------

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Vacuum entry

B01	Rc 1/8
N01	NPT 1/8
T01	NPTF 1/8

Buffer stroke (Rotating)

Stroke	ø40	ø50	ø63	ø80	ø100	ø125
25	●	●	●	●	●	●
50	●	●	●	●	●	●
75	●	●	●	●	●	●
100	—	—	—	—	●	●

Mounting thread

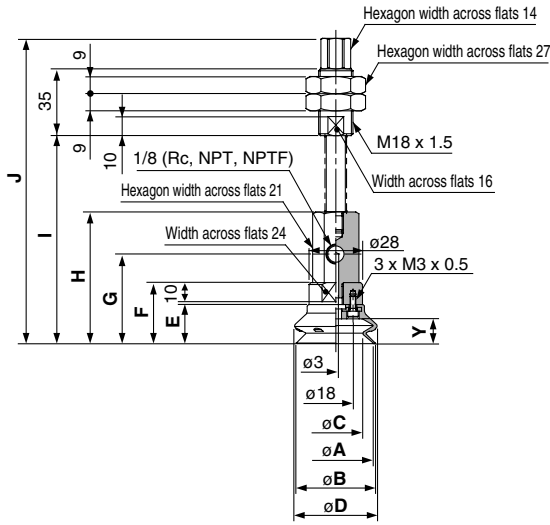
A18	M18 x 1.5 (ø40 to ø80)
A22	M22 x 1.5 (ø100, ø125)

Tightening torque (N·m)

Mounting thread dia.	Torque
M18 x 1.5	10.0 ±0.5
M22 x 1.5	10.0 ±0.5

Series ZPX

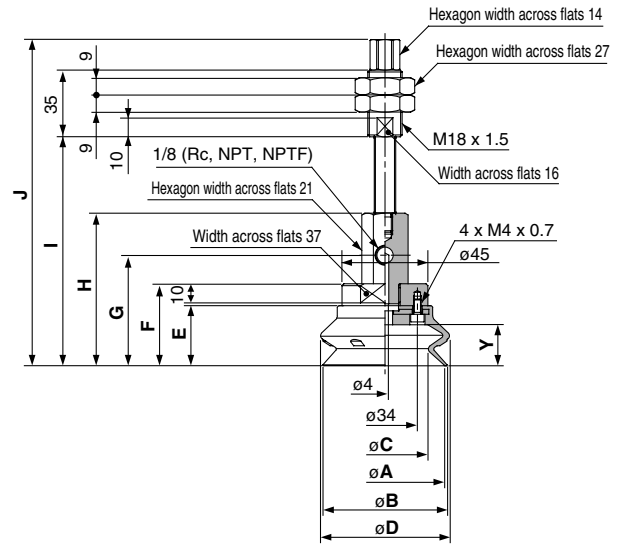
ZPX₅₀⁴⁰HB□J□-□01-A18 (Male thread)



Dimensions (mm)

Model	A	B	C	D	E	F	G	H	I	J	Y
ZPX40HB□J25-□01-A18									109	160	
50-□01-A18	40	41	28	43	20.5	32	47	69	144	195	13
75-□01-A18									180	231	
ZPX50HB□J25-□01-A18									112.5	163.5	
50-□01-A18	50	52	36	54	24	35.5	50.5	72.5	147.5	198.5	16.5
75-□01-A18									183.5	234.5	

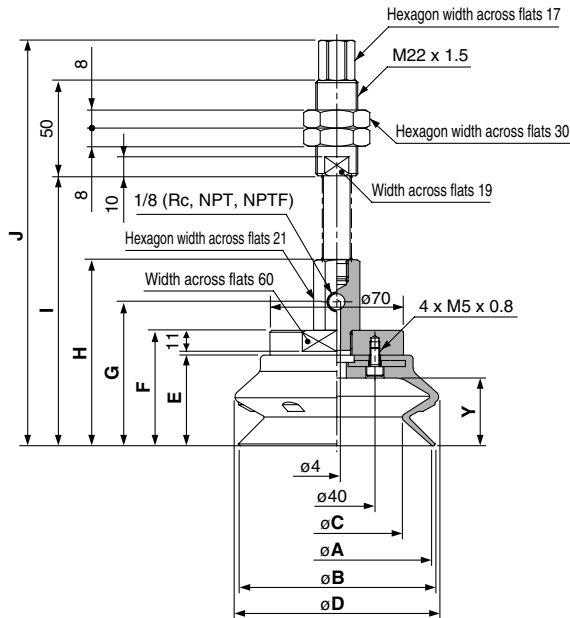
ZPX₈₀⁶³HB□J□-□01-A18 (Male thread)



Dimensions (mm)

Model	A	B	C	D	E	F	G	H	I	J	Y
ZPX63HB□J25-□01-A18										120	171
50-□01-A18	63	65	46	68	31.5	43	58	80	155	206	21.5
75-□01-A18									191	242	
ZPX80HB□J25-□01-A18									125.5	176.5	
50-□01-A18	80	83	58	85	37	48.5	63.5	85.5	160.5	211.5	27.5
75-□01-A18									196.5	247.5	

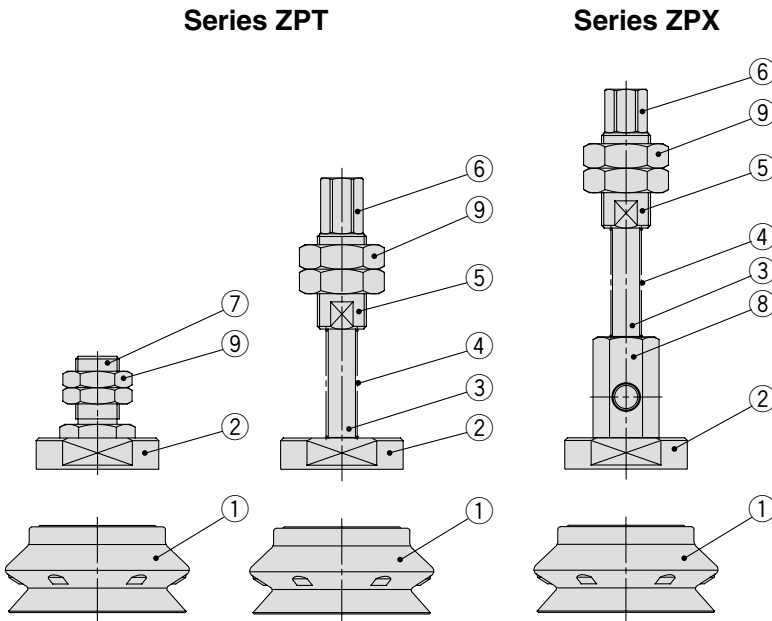
ZPX₁₂₅¹⁰⁰HB□J□-□01-A22 (Male thread)



Dimensions (mm)

Model	A	B	C	D	E	F	G	H	I	J	Y
ZPX100HB□J25-□01-A22									141.5	212.5	
50-□01-A22	100	103	69	107	47.5	60.5	75.5	97.5	177.5	248.5	35.5
75-□01-A22									217.5	288.5	
100-□01-A22									252.5	323.5	
ZPX125HB□J25-□01-A22									150	221	
50-□01-A22	125	129	89	135	56	69	84	106	186	257	44
75-□01-A22									226	297	
100-□01-A22									261	332	

Construction



Component Parts

No.	Description	Material	Surface treatment
1	Pad	NBR, Silicone rubber, Urethane rubber, Fluororubber, EPR	—
2	Adapter plate	Aluminum	—
3	Piston rod	Carbon steel	Hard chrome plated
4	Spring	Stainless steel	—
5	Buffer body	Aluminum	—
6	Buffer adapter	Brass	Electroless nickel plated
7	Adapter A	Brass	Electroless nickel plated
8	X type adapter	Brass	Electroless nickel plated
9	Mounting nut	Rolled steel	Nickel plated

Replacement Parts/Pad Unit

How to Order

ZP 40 HB N

Pad diameter (mm)

40	ø40
50	ø50
63	ø63
80	ø80
100	ø100
125	ø125

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
E	EPR

Pad type

HB Large bellows pad

Mass

Model	Mass (g)
ZP 40HBN	17
ZP 50HBN	33
ZP 63HBN	63
ZP 80HBN	103
ZP100HBN	206
ZP125HBN	390

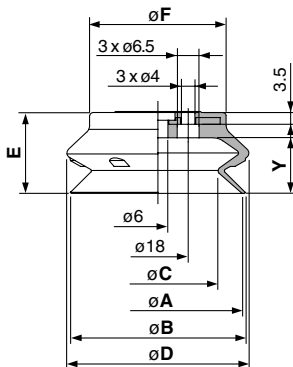
Mass Difference for Other Materials

Add NBR mass to below table for other materials.

Pad dia.	Silicon rubber	Urethane rubber	Fluoro-rubber	EPR
ø40	-1	+1	+10	0
ø50	-2	+1	+19	0
ø63	-3	+2	+37	0
ø80	-6	+2	+61	0
ø100	-12	+4	+121	-1
ø125	-22	+7	+228	-3

Dimensions

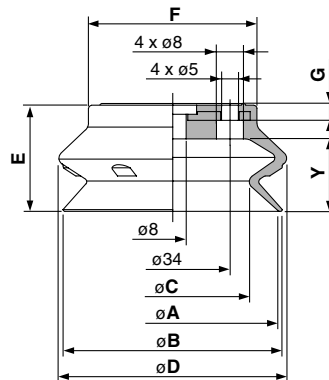
ZP⁴⁰₅₀40HB□



Dimensions (mm)

Model	A	B	C	D	E	F	Y
ZP40HB□	40	41	28	43	20.5	30	13
ZP50HB□	50	52	36	54	24	40.5	16.5

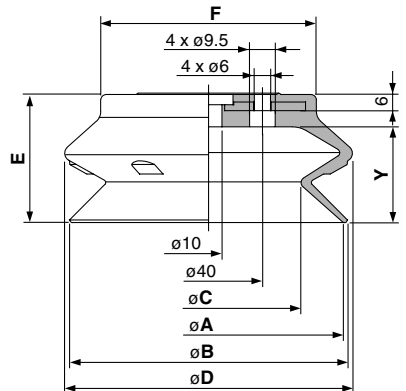
ZP⁶³₈₀63HB□



Dimensions (mm)

Model	A	B	C	D	E	F	G	Y
ZP63HB□	63	65	46	68	31.5	50	4.5	21.5
ZP80HB□	80	83	58	85	37	64	5	27.5

ZP¹⁰⁰₁₂₅100HB□



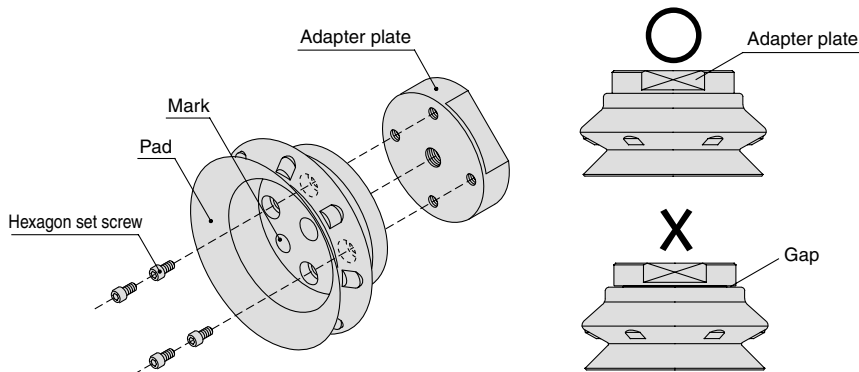
Dimensions (mm)

Model	A	B	C	D	E	F	Y
ZP100HB□	100	103	69	107	47.5	80	35.5
ZP125HB□	125	129	89	135	56	105	44

Series ZPT/ZPX

How to Replace the Pad

Remove bolts with a hex. key wrench from the pad underside. Tighten new pad with the bolts ensuring there is no gap between the adapter plate and the pad.



How to Distinguish Different Pad Materials

Check for the indicator mark on the pad's interior surface as shown in the figure at left.

Material	Color	Mark
NBR	Black	—
Silicon rubber	White	—
Urethane rubber	Brown	—
Fluororubber	Black	ⓕ
EPR	Black	ⓔ

Replacement Parts/Mounting Nut

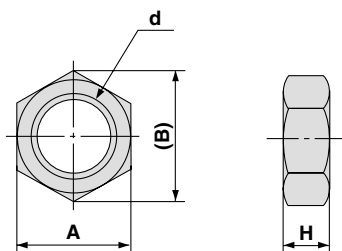
How to Order

ZPNA - **M16**

● Mounting thread

M14	M14 x 1
M16	M16 x 1.5
M18	M18 x 1.5
M22	M22 x 1.5

Dimensions

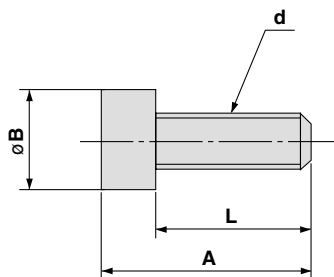


Dimensions (mm)

Model	A	B	d	H
ZPNA-M14	19	21.9	M14 x 1	5
ZPNA-M16	22	25.4	M16 x 1.5	6
ZPNA-M18	27	31.2	M18 x 1.5	9
ZPNA-M22	30	34.6	M22 x 1.5	8

Bolts (Hexagonal Socket Head Cap Screw)

Dimensions



Dimensions (mm)

A	B	d	L
11	5.5	M3 x 0.5	8
12	7	M4 x 0.7	8
15	8.5	M5 x 0.8	10