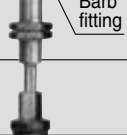
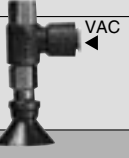
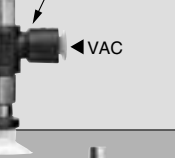
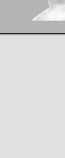


Vacuum Pad

Series ZP

Type	Without buffer			With buffer		
	Vacuum entry port	Mounting	VAC	Vacuum entry port	Mounting	VAC
 P.1120 to P.1145 Series ZPT Vertical vacuum entry	Male thread	(Common)		Female thread	Buffer body	
	Female thread	(Common)		Barb fitting	Buffer body	
 P.1146 to P.1161 Series ZPR Lateral vacuum entry with One-touch fitting	One-touch fitting	Male thread		One-touch fitting	Buffer body	
	One-touch fitting	Female thread				
 P.1162 to P.1177 Series ZPY Lateral vacuum entry with Barb fitting	Barb fitting	Male thread		Barb fitting	Buffer body	
	Barb fitting	Female thread				

Pad form (Compatible with all models)	Flat (U)	Flat with ribs (C)	Deep (D)	Bellows (B)	Thin flat (UT)	Thin flat with ribs (CT)
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Pad diameter	2 x 4	3.5 x 7	4 x 10	ø2	ø4	ø6	ø8	ø10	ø13	ø16	ø20	ø25	ø32	ø40	ø50
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Pad diameter (ø2 to ø125)	ø2 to ø125
------------------------------	------------

Pad material	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluoro rubber (Black with green mark), Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)
--------------	--

Pad selection	Refer to the vacuum equipment model selection on pages 828 to 834 for the calculation of lift force and response time.
---------------	--

Pad Material and Characteristics

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

Material	Characteristics	Durometer HS (±5°)	Operating temperature range (°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	◎	X	○	○	X	X	◎	○	X
Silicon rubber		40°	-30 to 200	X	X	○	X	◎	◎	X	○	X
Urethane rubber		60°	0 to 60	◎	X	X	X	○	◎	◎	X	X
Fluoro rubber		60°	0 to 250	◎	◎	X	◎	◎	◎	○	◎	◎
Conductive NBR		50°	0 to 100	○	X	○	X	○	X	○	○	X
Conductive silicon rubber		50°	-10 to 200	X	X	○	X	◎	◎	X	○	X

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



Vacuum Pad/ Vertical Vacuum Entry Without Buffer

Series ZPT

RoHS



Specifications

Vacuum entry	Direction		Vertical	
	Connection		Male thread	Female thread
	Thread diameter	ø2 to ø8 Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16)	M5 x 0.8, M6 x 1	M4 x 0.7, M5 x 0.8
		ø10 to ø16	M5 x 0.8, M6 x 1	M5 x 0.8, M6 x 1 1/8 (Rc, NPT, NPTF)
		ø20 to ø32	M6 x 1, M8 x 1	M5 x 0.8, M6 x 1, M8 x 1.25 1/8 (Rc, NPT, NPTF)
		ø40, ø50	M6 x 1, M8 x 1	M6 x 1, M8 x 1.25 1/8 (Rc, NPT, NPTF)
Mounting		Use connection for vacuum entry		

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad diameter (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluoro rubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluoro rubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Mass/Male Thread (Female thread)

(g)

Model	Flat					Flat with ribs				Deep				Bellows				
	M4	M5	M6	M8	□ 1/8	M5	M6	M8	□ 1/8	M5	M6	M8	□ 1/8	M4	M5	M6	M8	□ 1/8
ZPT02 to ZPT08	— (3.5)	2.5 (3)	3.5 (—)	—	—	—	—	—	—	—	—	—	—	— (3.5) /except/ ø2, ø4	2.5 (3) /except/ ø2, ø4	3.5 (—) /except/ ø2, ø4	—	—
ZPT10	—	10 (6.5)	12 (6)	—	— (13)	10 (6.5)	12 (6)	—	— (12)	10 (7)	12 (6)	— (13)	—	—	10 (6.5)	12 (6)	—	— (13)
ZPT13	—	—	—	—	—	—	—	—	—	11 (7)	15 (7)	15 (13)	—	—	—	—	—	—
ZPT16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ZPT20	—	—	15 (8)	26 (17)	— (16)	— (8.5)	15 (8)	26 (17)	— (16)	—	15 (10)	15 (18)	— (17)	—	—	15 (8)	16 (17)	— (16)
ZPT25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ZPT32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ZPT40	—	—	28 (26)	30 (25)	— (23)	—	28 (26)	30 (25)	— (16)	—	30 (28)	32 (26)	— (20)	—	—	28 (26)	30 (25)	— (23)
ZPT50	—	—	30 (29)	32 (27)	— (25)	—	32 (30)	34 (29)	— (27)	—	—	—	—	—	—	30 (29)	32 (27)	— (25)

* (): Figures for female thread connections

How to Order

Series ZPT Without buffer

ZPT 02 U N - A5

Pad diameter
(mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Vacuum entry/Mounting thread diameter

Connection	Symbol	Thread diameter	ø2 to ø8 2 x 4, 3.5 x 7, 4 x 10 ø10 to ø16 (Thin section series)	ø10 to ø16	ø20 to ø32	ø40, ø50
Male thread	A5	M5 x 0.8	●	●	—	—
	A6	M6 x 1	●	●	●	●
	A8	M8 x 1	—	—	●	●
Female thread	B4	M4 x 0.7	●	—	—	—
	B5	M5 x 0.8	●	●	●	—
	B6	M6 x 1	—	●	●	●
	B8	M8 x 1.25	—	—	●	●
	B01	Rc 1/8	—	●	●	●
	N01	NPT 1/8	—	●	●	●
	T01	NPTF 1/8	—	●	●	●

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

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

Related
Equipment

Pad type (Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Table (1) Pad Diameter/Pad Type

Diameter (mm)		2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Type	Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Flat with ribs	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●
	Deep	—	—	—	—	—	—	—	—	—	●	—	—	—	—	—
	Bellows	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●
	Thin flat	—	—	—	—	—	—	—	—	●	●	—	—	—	—	—
	Thin flat with ribs	—	—	—	—	—	—	—	—	●	●	—	—	—	—	—

⚠ Precautions

Be sure to read before handling. Refer to front matters 38 and 39 for Safety Instructions and pages 844 to 846 for Vacuum Equipment Precautions.

Caution on Design

⚠ Warning

- In cases where workpieces are heavy or dangerous, etc., take measures to address a possible loss of adsorption force (installation of drop prevention guides, etc.).**
In the case of transportation by vacuum adsorption using vacuum pads, adsorption force is lost when there is a drop in vacuum pressure. Furthermore, since vacuum pressure can also deteriorate due to wear and cracking of pads, and vacuum leakage from piping, etc., be certain to perform maintenance on vacuum equipment.

Selection

⚠ Caution

- The pad materials differ depending upon the operating environment.**
An appropriate pad material should be selected. Furthermore, since vacuum pads are manufactured for use with industrial products, they should not have direct contact with pharmaceuticals or food products, etc.
- Depending upon the weight and shape of the workpieces, the diameter, quantity and shape of pads will vary.**
Use the pad lifting force table for reference. Also, the pads selected will differ based upon conditions other than the above, such as the condition of the workpiece surface (presence or absence of oil or water), the workpiece material and its gas permeability. Confirmation is necessary by actually performing vacuum adsorption testing on the subject workpieces.
- Use a buffer for adsorption on fragile workpieces.**
The cushioning by the buffer is necessary when there is variation in the height of workpieces. When further positioning of pads and workpieces is desired, a detent buffer can be used.

- The life of a buffer will be reduced if the lateral force is applied to the buffer shaft.**
Note that sometimes a load is applied to the buffer by a piping tube (pulling or pressing, etc. in a lateral direction).
- Do not apply an impact or large forces to a pad when adsorbing a workpiece.**
This will cause deformation, cracking and wear of the pad to be accelerated. The stiffening ribs, etc. should touch lightly, while staying within the pad skirt's deformation range. Positioning should be performed accurately. Especially in the case of small diameter pads.
- When transporting in an upward direction, factors such as acceleration, wind pressure and impact force must be considered in addition to a workpiece weight.**
Use caution particularly when lifting items such as glass plates and circuit boards, because a large force will be applied by the wind pressure. When a workpiece which is oriented vertically is transported horizontally, large forces are applied by acceleration when movement is started and stopped. Further, in cases where the pad and a workpiece can slip easily, accelerations and decelerations of horizontal movement should be kept low.
- When transporting flat workpieces that have large surface areas using multiple pads, care must be taken when arranging the pads to balance the workpiece.**

Maintenance

⚠ Caution

- Perform pad maintenance regularly.**
Since pads are essentially rubber, deterioration is unavoidable. The rate of deterioration depends upon factors such as conditions of use, environment and temperature. Regular maintenance should be performed. If any damage, splitting, cracking or abrasion has occurred in a pad which appears to be harmful, replace it immediately. Also, take care not to damage the outside of the pad.

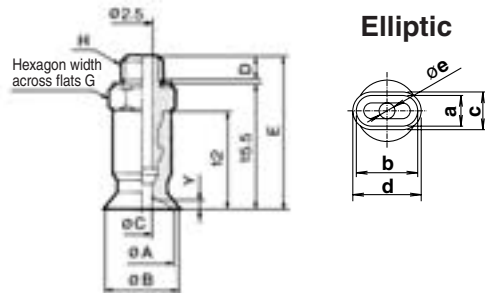
Series ZPT

Connection	Male thread	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Vertical	Mounting	Use connection for vacuum entry

Thin flat/Thin flat with ribs $\phi 10$, $\phi 13$, $\phi 16$ /Elliptic 2004, 3507, 4010
Size/Flat $\phi 2$, $\phi 4$, $\phi 6$, $\phi 8$

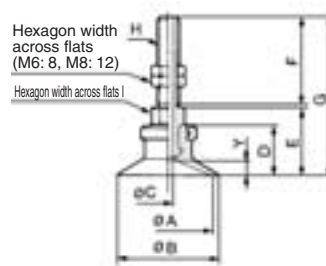
Size/ $\phi 20$, $\phi 25$, $\phi 32$

Flat/Thin flat/Thin flat with ribs

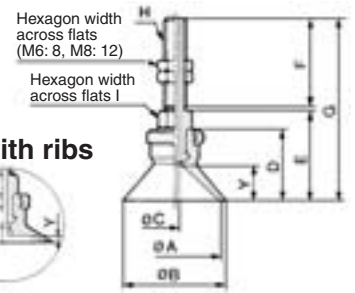


Elliptic

Flat



Deep: ZPT25D only



Flat with ribs



Flat/Thin Flat/Thin Flat with Ribs

Model	A	B	C	H: M5 x 0.8			H: M6 x 1			Y
				D	E	G	D	E	G	
ZPT02U	2	2.6	1.2	3	19	7	4	20	8	0.5
ZPT04U	4	4.8	1.6							0.8
ZPT06U	6	7	2.5							1
ZPT08U	8	9								1.5
ZPT10UT	10	11								0.8
ZPT13UT	13	14								1
ZPT16UT	16	17								
ZPT10CT	10	11								
ZPT13CT	13	14								
ZPT16CT	16	17								

Elliptic

Model	a	b	c	d	e	Y
ZPT2004U	2	4	2.6	4.6	1.2	0.3
ZPT3507U	3.5	7	4.3	7.8	1.8	0.5
ZPT4010U	4	10	5	11	2	0.8

* Dimensions of D, E, G are the same.

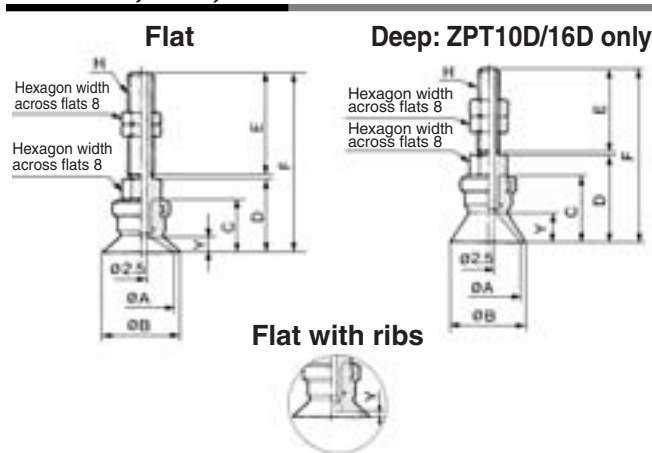
Flat/Flat with Ribs

Model	A	B	D	H: M6 x 1					H: M8 x 1					Y	
				C	E	F	G	I	C	E	F	G	I	Flat	Flat with ribs
ZPT20 ^U _C	20	23	14	3	19	25	45	8	3.5	24	15	40	12	4	1.7
ZPT25 ^U _C	25	28													1.8
ZPT32 ^U _C	32	35	14.5		19.5		45.5			24.5		40.5		4.5	2.3

Deep

Model	A	B	D	H: M6 x 1					H: M8 x 1					Y
				C	E	F	G	I	C	E	F	G	I	
ZPT25D	25	28	20	3	25	25	51	8	3.5	30	15	46	12	10

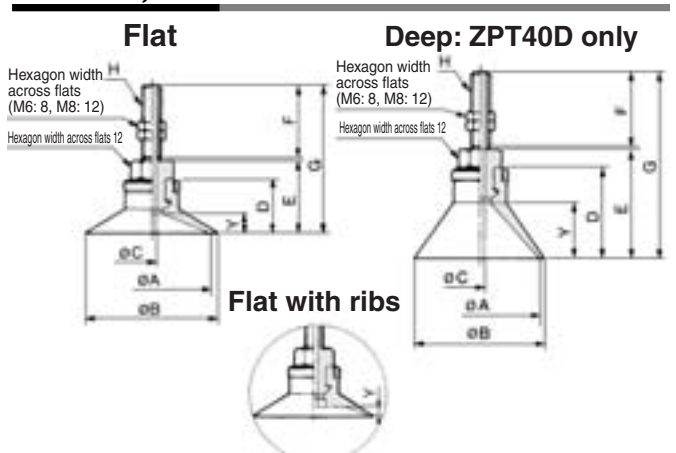
Size/ $\phi 10$, $\phi 13$, $\phi 16$



Flat with ribs



Size/ $\phi 40$, $\phi 50$



Flat with ribs



Flat/Flat with Ribs

Model	A	B	C	D	H: M5 x 0.8		H: M6 x 1		Y	
					E	F	E	F	Flat	Flat with ribs
ZPT10 ^U _C	10	12								1.7
ZPT13 ^U _C	13	15	12	17	20	38	25	43	3	1.8
ZPT16 ^U _C	16	18	12.5	17.5		38.5		43.5	3.5	1.2

Deep

Model	A	B	C	D	H: M5 x 0.8		H: M6 x 1		Y
					E	F	E	F	
ZPT10D	10	12	15	20	20	41	25	46	6
ZPT16D	16	18	16	21	20	42	25	47	7

Flat/Flat with Ribs

Model	A	B	D	E	H: M6 x 1			H: M8 x 1			Y	
					C	F	G	C	F	G	Flat	Flat with ribs
ZPT40 ^U _C	40	43	18.5	24.5	3	25	50.5	4.5	15	40.5	6.5	3.3
ZPT50 ^U _C	50	53	19.5	25.5			51.5			41.5	7.5	3.8

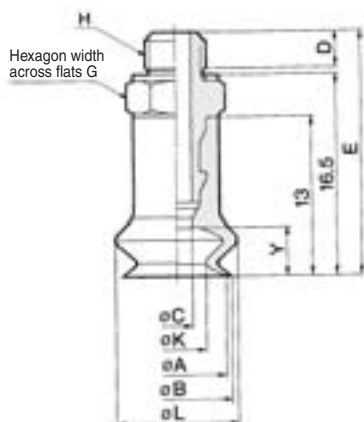
Deep

Model	A	B	D	E	H: M6 x 1			H: M8 x 1			Y
					C	F	G	C	F	G	
ZPT40D	40	43	29	35.5	3	25	61	4.5	15	51	17

Connection	Male thread	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Use connection for vacuum entry

Size/ø6, ø8

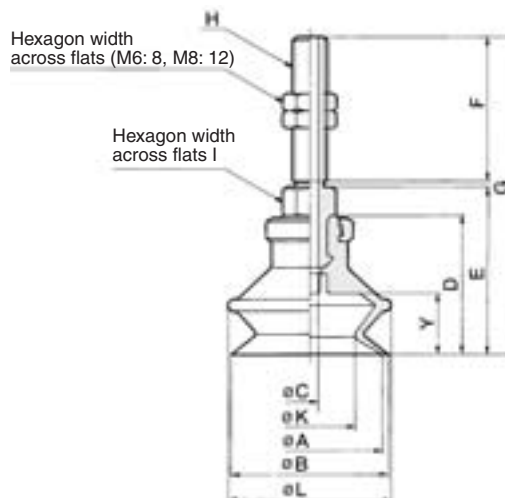
Bellows



Model	A	B	C	H: M5 x 0.8			H: M6 x 1			K	L	Y
				D	E	G	D	E	G			
ZPT06B	6	7	2.5	3	20	7	4	21	8	3.3	9	4
ZPT08B	8	9								4.7	10	

Size/ø20, ø25, ø32

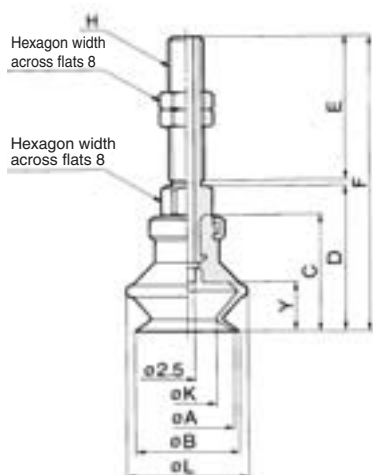
Bellows



Model	A	B	D	H: M6 x 1					H: M8 x 1					K	L	Y
				C	E	F	G	I	C	E	F	G	I			
ZPT20B	20	22	23.5		28.5		54.5		33.5		49.5			12	25	10.5
ZPT25B	25	27	24	3	29	25	55	8	3.5	34	15	50	12	16	28	10.5
ZPT32B	32	34	29		34		60			39		55		19	37	14

Size/ø10, ø13, ø16

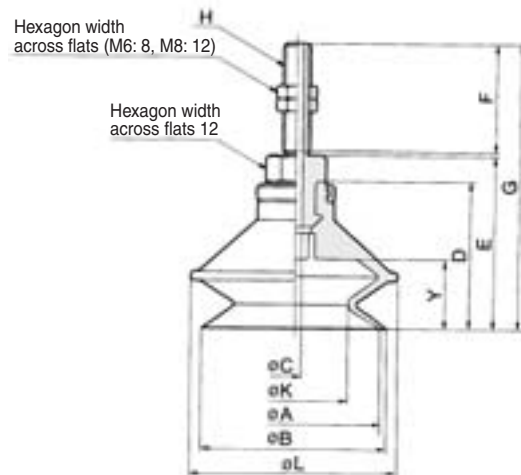
Bellows



Model	A	B	C	D	H: M5 x 0.8		H: M6 x 1		K	L	Y
					E	F	E	F			
ZPT10B	10	12	16	21		42		47	6	14	5.5
ZPT13B	13	15	18.5	23.5	20	44.5	25	49.5	9	19	7.5
ZPT16B	16	18	20	25		46		51	10	21	8.5

Size/ø40, ø50

Bellows



Model	A	B	D	E	H: M6 x 1			H: M8 x 1			K	L	Y
					C	F	G	C	F	G			
ZPT40B	40	43	34	40			66	4.5	15	56	24	48	16
ZPT50B	50	53	38	44	3	25	70			60	32	57	19

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

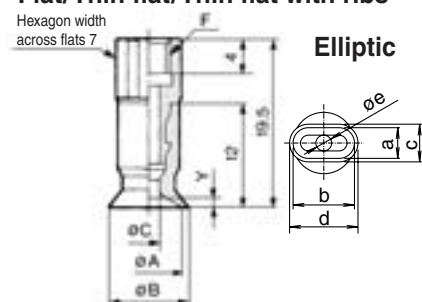
Related
Equipment

Series ZPT

Connection	Female thread	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Use connection for vacuum entry

Thin flat/Thin flat with ribs $\phi 10$, $\phi 13$, $\phi 16$ /Elliptic 2004, 3507, 4010
Size/Flat $\phi 2$, $\phi 4$, $\phi 6$, $\phi 8$ Size/ $\phi 20$, $\phi 25$, $\phi 32$

Flat/Thin flat/Thin flat with ribs



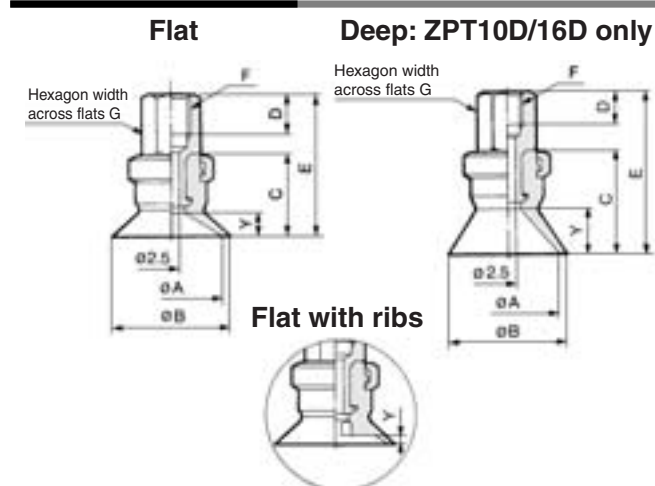
Flat

Model	A	B	C	F	Y
ZPT02U	2	2.6	1.2	M4 x 0.7	0.5
ZPT04U	4	4.8	1.6		0.8
ZPT06U	6	7			1
ZPT08U	8	9			1.5
ZPT10UT	10	11		M5 x 0.8	0.8
ZPT13UT	13	14			1
ZPT16UT	16	17			1.5
ZPT10CT	10	11			0.8
ZPT13CT	13	14			1
ZPT16CT	16	17			

Elliptic

Model	a	b	c	d	e	Y
ZPT2004U	2	4	2.6	4.6	1.2	0.3
ZPT3507U	3.5	7	4.3	7.8	1.8	0.5
ZPT4010U	4	10	5	11	2	0.8

Size/ $\phi 10$, $\phi 13$, $\phi 16$



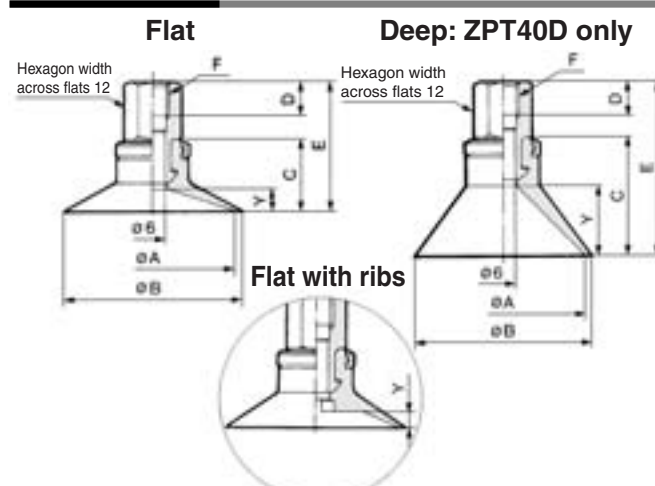
Flat/Flat with Ribs

Model	A	B	C	F: M5 x 0.8			F: M6 x 1			F: 1/8 (Rc, NPT, NPTF)		Y	
				D	E	G	D	E	G	E	G	Flat	Flat with ribs
ZPT10U	10	12	12	5	21	8	6	21	8	27	12	3	1.7
ZPT13U	13	15											1.8
ZPT16U	16	18	12.5		21.5			21.5		27.5		3.5	1.2

Deep

Model	A	B	C	F: M5 x 0.8			F: M6 x 1			F: 1/8 (Rc, NPT, NPTF)		Y
				D	E	G	D	E	G	E	G	
ZPT10D	10	12	15	5	24	8	6	24	8	30	12	6
ZPT16D	16	18	16		25			25		31		7

Size/ $\phi 40$, $\phi 50$



Flat/Flat with Ribs

Model	A	B	C	F: M6 x 1		F: M8 x 1.25		F: Rc 1/8		Y	
				D	E	D	E	E	E	Flat	Flat with ribs
ZPT40U	40	43	18.5	6	32	8	32	32	32	6.5	3.3
ZPT50U	50	53	19.5		33		33	33	33	7.5	3.8

Deep

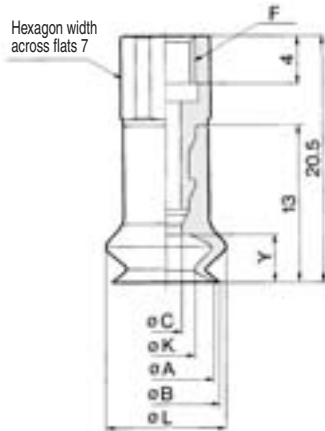
Model	A	B	C	F: M6 x 1		F: M8 x 1.25		F: 1/8 (Rc, NPT, NPTF)		Y
				D	E	D	E	E	E	
ZPT40D	40	43	29	6	42.5	8	42.5	42.5	42.5	17

Vacuum Pad/
Vertical Vacuum Entry Without Buffer **Series ZPT**

Connection	Female thread	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Use connection for vacuum entry

Size/ø6, ø8

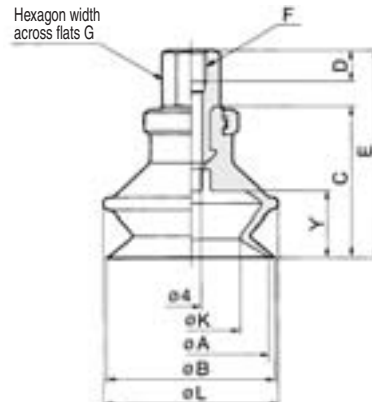
Bellows



Model	A	B	C	F	K	L	Y
ZPT06B	6	7	2.5	M4 x 0.7	3.3	9	4
ZPT08B	8	9		M5 x 0.8	4.7	10	

Size/ø20, ø25, ø32

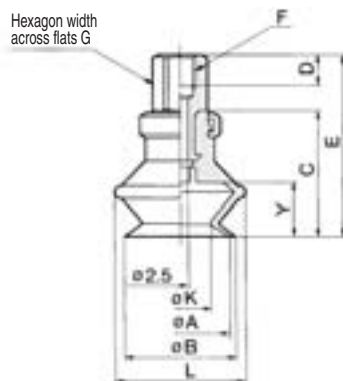
Bellows



Model	A	B	C	F: M5 x 0.8			F: M6 x 1			F: M8 x 1.25			F: 1/8 (Rc, NPT, NPTF)		K	L	Y
				D	E	G	D	E	G	D	E	G	E	G			
ZPT20B	20	22	23.5		32.5			32.5			38.5		38.5		12	25	10.5
ZPT25B	25	27	24	5	33	8	6	33	8	8	39	12	39	12	16	28	10.5
ZPT32B	32	34	29		38			38			44		44		19	37	14

Size/ø10, ø13, ø16

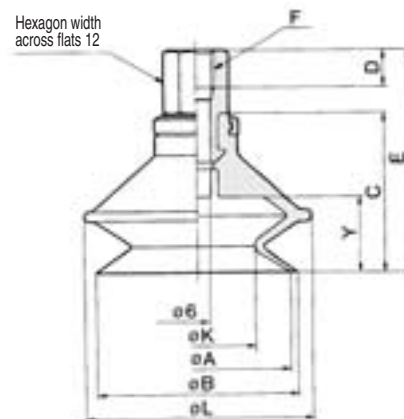
Bellows



Model	A	B	C	F: M5 x 0.8			F: M6 x 1			F: 1/8 (Rc, NPT, NPTF)		K	L	Y
				D	E	G	D	E	G	E	G			
ZPT10B	10	12	16		25			25		31		6	14	5.5
ZPT13B	13	15	18.5	5	27.5	8	6	27.5	8	33.5	12	9	19	7.5
ZPT16B	16	18	20		29			29		35		10	21	8.5

Size/ø40, ø50

Bellows



Model	A	B	C	F: M6 x 1			F: M8 x 1.25			F: 1/8 (Rc, NPT, NPTF)		K	L	Y
				D	E	G	D	E	G	E	G			
ZPT40B	40	43	34		47.5			47.5		47.5		24	48	16
ZPT50B	50	53	38	6	51.5	8		51.5		51.5		32	57	19

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



Vacuum Pad/ Vertical Vacuum Entry With Buffer

Series ZPT

RoHS



Specifications

Vacuum entry direction			Vertical		
Vacuum entry	Connection		Female thread	Barb fitting	One-touch fitting
	Applicable tube dia.	ø2 to ø8 Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16)	M3 x 0.5 M5 x 0.8	ø4 Nylon tube ø4 Urethane tube	ø4 tube ø6 tube
		ø10 to ø32	M5 x 0.8	ø6 Nylon tube ø6 Urethane tube	ø4 tube ø6 tube
		ø40 to ø50	M5 x 0.8 1/8 (Rc, NPT, NPTF)	ø6 Nylon tube ø6 Urethane tube	ø6 tube ø8 tube
		Connection	Thread dia.	ø2 to ø8	M8 x 1 Male thread
ø10 to ø32	M10 x 1 Male thread				
ø40 to ø50	M14 x 1 Male thread				

Buffer Specifications

Pad dia. (mm)		ø2 to ø8*	ø10 to ø32	ø40, ø50
Stroke (mm)		6, 10, 15, 25	10, 20, 30, 40, 50	10, 20, 30, 50
Spring Reactive Force (N)	0 stroke	0.8	1.0	2.0
	Full stroke	1.2	3.0	5.0
Non-rotating specification		Rotating (J)/Non-rotating (K)		

* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs and Elliptic.

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows
Pad diameter (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)			
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluororubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)			

Mass

(g)

Stroke (mm)	Pad form Vacuum entry port	Flat/Flat with ribs							Deep					Bellows							
		Female thread			One-touch fitting			Barb fitting	Female thread			One-touch fitting			Barb fitting	Female thread			One-touch fitting		
	Model	B3	B5	01	04	06	08	N U	B5	01	04	06	08	N U	B3	B5	01	04	06	08	N U
6	ZPT2004 3507 4010																				
	ZPT 02 to 08 Thin section series 10 to 16	22	24	—	26	27	—	22	—	—	—	—	—	22	24	—	26	27	—	22	
10	ZPT 10 to 16	—	26	—	29	30	—	25	27	—	29	30	—	25	—	27	—	30	31	—	26
10	ZPT 20 to 25	—	29	—	31	33	—	27	30	—	32	33	—	28	—	31	—	34	35	—	30
	ZPT 32	—	57	—	33	34	—	30	—	—	—	—	—	—	36	—	38	39	—	34	
10	ZPT 40	—	129	132	—	133	141	129	131	134	—	134	143	129	—	141	144	—	145	153	140
	ZPT 50	—	135	138	—	139	147	133	—	—	—	—	—	—	148	151	—	152	160	147	

Mass by Stroke

(g)

Stroke (mm)	10	15	20	25	30	40	50
Model	10	15	20	25	30	40	50
ZPT2004 3507 4010	—	—	—	—	—	—	—
ZPT02 to 08 Thin section series 10 to 16	+6	+7	—	+8	—	—	—
ZPT10 to 25	—	—	+11	—	+13	+23	+24
ZPT40, 50	—	—	+38	—	+40	—	+67

How to Order

Series ZPT With buffer

ZPT 16 U GS K 20 - 06 - A10

Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Mounting thread diameter/ Male thread
(Refer to "Table (3)" for applications.)

Vacuum entry port
(Refer to "Table (3)" for applications.)

Buffer stroke
(Refer to "Table (2)" for applications.)

Buffer type

J	Rotating
K	Non-rotating

Pad type
(“Table (1)” for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Table (1) Pad Diameter/Pad Type

Diameter (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Type	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	●	—	●	—	●	—	●	—
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—

Table (2) Pad Diameter/Stroke

Stroke (mm)	Diameter (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	Thin flat/Thin flat with ribs			10	13	16	20	25	32	40	50
									10	13	16								
6 mm		●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
10 mm		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 mm		●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
20 mm		—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
25 mm		●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
30 mm		—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
40 mm		—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	—	—
50 mm		—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●

Table (3) Vacuum Entry/Mounting Thread Diameter

		Symbol	Thread dia./Port size	ø2 to ø8 2 x 4, 3.5 x 7, 4 x 10 Thin section series ø10 to ø16	ø10 to ø32	ø40, ø50
Vacuum entry	Female thread	B3	M3 x 0.5	●	—	—
		B5	M5 x 0.8	●	●	●
		B01	Rc 1/8	—	—	●
		N01	NPT 1/8	—	—	●
		T01	NPTF 1/8	—	—	●
	Barb fitting	N4	ø4 Nylon tube	●	—	—
		N6	ø6 Nylon tube	—	●	●
		U4	ø4 Urethane tube	●	—	—
		U6	ø6 Urethane tube	—	●	●
	One-touch fitting	04	ø4 tube	●	●	—
		06	ø6 tube	●	●	●
		08	ø8 tube	—	—	●
Mounting	Male thread	A8	M8 x 1	●	—	—
		A10	M10 x 1	—	●	—
		A14	M14 x 1	—	—	●

Tightening Torque

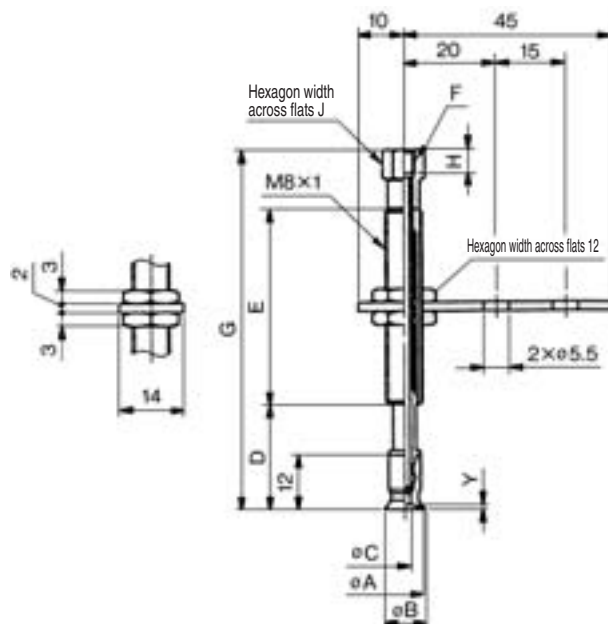
Mounting thread diameter	Torque (N·m)
M8 x 1	2.0 ±0.5
M10 x 1	3.0 ±0.5
M14 x 1	7.0 ±0.5

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

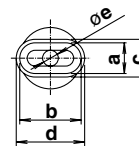
Series ZPT

Connection	Female thread (Buffer)	Pad Form	Flat/Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/ø2, ø4, ø6, ø8, Thin flat/Thin flat with ribs/ø10, ø13, ø16, Elliptic/2004, 3507, 4010



Elliptic



Flat

Model	A	B	C	Y
ZPT02U□□□□□-B□-A8	2	2.6	1.2	0.5
ZPT04U□□□□□-B□-A8	4	4.8	1.6	0.8
ZPT06U□□□□□-B□-A8	6	7	2.5	
ZPT08U□□□□□-B□-A8	8	9		

Elliptic

Model	a	b	c	d	e	Y
ZPT2004U	2	4	2.6	4.6	1.2	0.3
ZPT3507U	3.5	7	4.3	7.8	1.8	0.5
ZPT4010U	4	10	5	11	2	0.8

Thin Flat/Thin Flat with Ribs

Model	A	B	C	Y
ZPT10UT	10	11	2.5	1
ZPT13UT	13	14		1.5
ZPT16UT	16	17		
ZPT10CT	10	11		0.8
ZPT13CT	13	14		1
ZPT16CT	16	17		

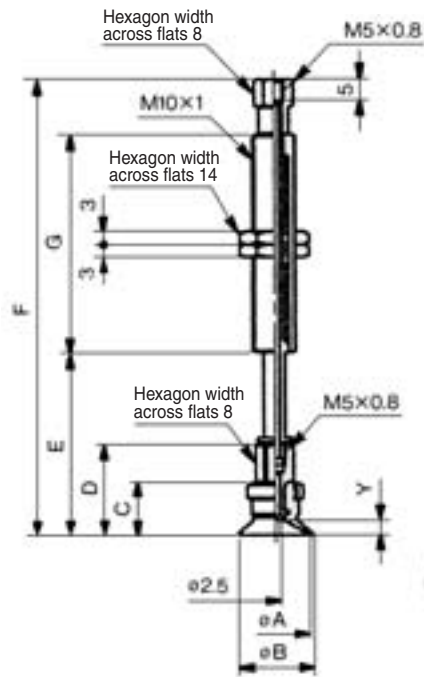
Dimensions by Stroke

Model	D	E	F: M3 x 0.5			F: M5 x 0.8		
			G	H	J	G	H	J
ZPT ☐ ☐ ☐ ☐ ☐ ☐ 6-B ☐ -A8	18	15	44	3	6	46	5	8
ZPT ☐ ☐ ☐ ☐ ☐ ☐ 10-B ☐ -A8	23	43	77			79		
ZPT ☐ ☐ ☐ ☐ ☐ ☐ 15-B ☐ -A8	28		82			84		
ZPT ☐ ☐ ☐ ☐ ☐ ☐ 25-B ☐ -A8	38		92			94		

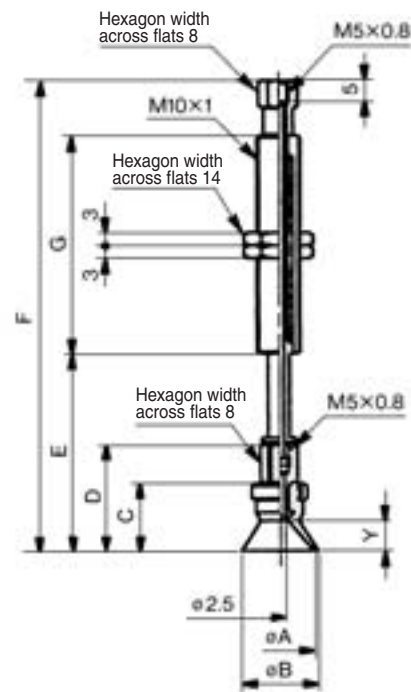
Connection	Female thread (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø10, ø13, ø16

Deep/ø10, ø16



Flat with ribs



ø10, ø13, ø16

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT10 ^U _C □□□□□-B5-A10	10	12	12	21	3	1.7
ZPT13 ^U _C □□□□□-B5-A10	13	15				1.8
ZPT16 ^U _C □□□□□-B5-A10	16	18	12.5	21.5	3.5	1.2

Dimensions by Stroke

Model	ø10, ø13		ø16		G
	E	F	E	F	
ZPT□□ ^U _C □□□□10-B5-A10	32.5	68.5	33	69	23
ZPT□□ ^U _C □□□□20-B5-A10	42.5	106.5	43	107	51
ZPT□□ ^U _C □□□□30-B5-A10	52.5	116.5	53	117	
ZPT□□ ^U _C □□□□40-B5-A10	62.5	152.5	63	153	77
ZPT□□ ^U _C □□□□50-B5-A10	72.5	162.5	73	163	

ø10, ø16

Deep

Model	A	B	C	D	Y
ZPT10D□□□□□-B5-A10	10	12	15	24	6
ZPT16D□□□□□-B5-A10	16	18	16	25	7

Dimensions by Stroke

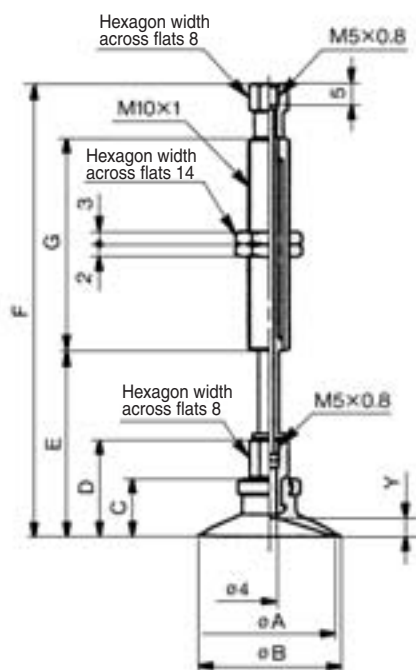
Model	ø10		ø16		G
	E	F	E	F	
ZPT□□D□□□□10-B5-A10	35.5	71.5	36.5	72.5	23
ZPT□□D□□□□20-B5-A10	45.5	109.5	46.5	110.5	51
ZPT□□D□□□□30-B5-A10	55.5	119.5	56.5	120.5	
ZPT□□D□□□□40-B5-A10	65.5	155.5	66.5	156.5	77
ZPT□□D□□□□50-B5-A10	75.5	165.5	76.5	166.5	

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

Series ZPT

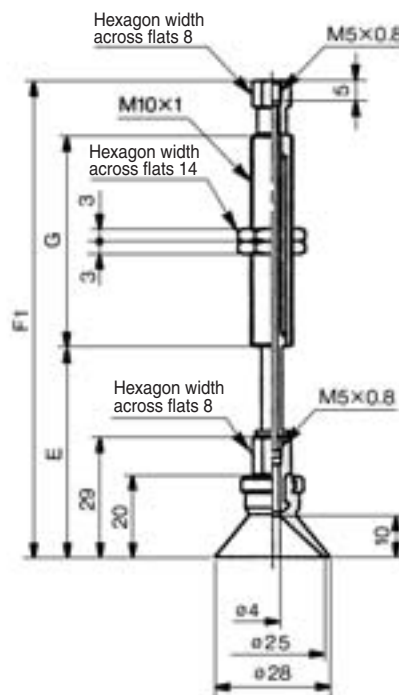
Connection	Female thread (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø20, ø25, ø32



Flat with ribs

Deep/ø25



ø20, ø25, ø32

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT20 ^U _C □□□□□-B5-A10	20	23	14	23	4	1.7
ZPT25 ^U _C □□□□□-B5-A10	25	28				1.8
ZPT32 ^U _C □□□□□-B5-A10	32	35	14.5	23.5	4.5	2.3

Dimensions by Stroke

Model	ø20, ø25		ø32		G
	E	F	E	F	
ZPT□□ ^U _C □□□□10-B5-A10	34.5	70.5	35	71	23
ZPT□□ ^U _C □□□□20-B5-A10	44.5	108.5	45	109	51
ZPT□□ ^U _C □□□□30-B5-A10	54.5	118.5	55	119	
ZPT□□ ^U _C □□□□40-B5-A10	64.5	154.5	65	155	77
ZPT□□ ^U _C □□□□50-B5-A10	74.5	164.5	75	165	

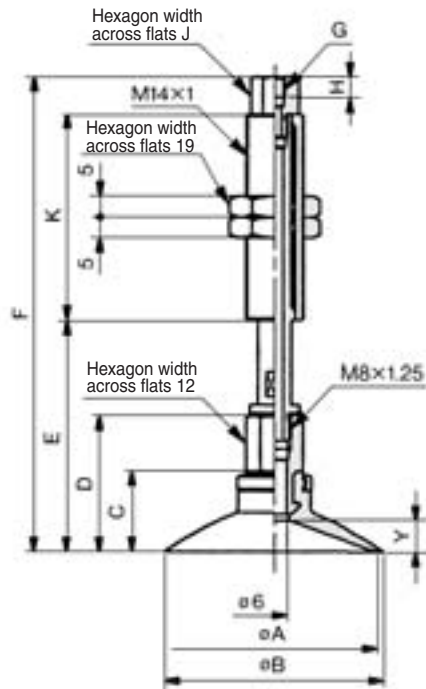
ø25

Deep

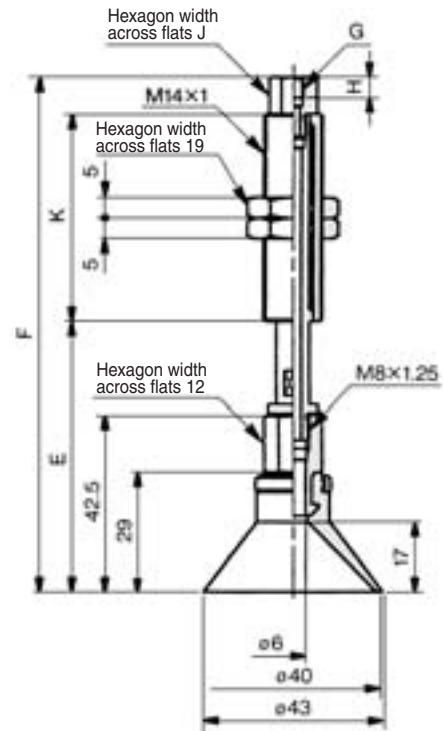
Model	E	F	G
ZPT25D□□□10-B5-A10	40.5	76.5	23
ZPT25D□□□20-B5-A10	50.5	114.5	51
ZPT25D□□□30-B5-A10	60.5	124.5	
ZPT25D□□□40-B5-A10	70.5	160.5	77
ZPT25D□□□50-B5-A10	80.5	170.5	

Connection	Female thread (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø40, ø50



Flat with ribs



ø40, ø50

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT40 ^U □□□□□-□□□□- A14	40	43	18.5	32	6.5	3.3
ZPT50 ^U □□□□□-□□□□- A14	50	53	19.5	33	7.5	3.8

Dimensions by Stroke

Model	E		G: M5 x 0.8				G: 1/8 (Rc, NPT, NPTF)		K	
	ø40	ø50	F		H	J	F			
			ø40	ø50			ø40	ø50		J
ZPT □ □ ^U □ □ □ □ 10- □ □ □ □ -A14	44.5	45.5	109.5	110.5	5	10	111	112	13	50
ZPT □ □ ^U □ □ □ □ 20- □ □ □ □ -A14	54.5	55.5	113.5	114.5			116.5	117.5		
ZPT □ □ ^U □ □ □ □ 30- □ □ □ □ -A14	64.5	65.5	123.5	124.5			126.5	127.5		
ZPT □ □ ^U □ □ □ □ 50- □ □ □ □ -A14	84.5	85.5	168.5	169.5			171.5	172.5		

ø40

Deep

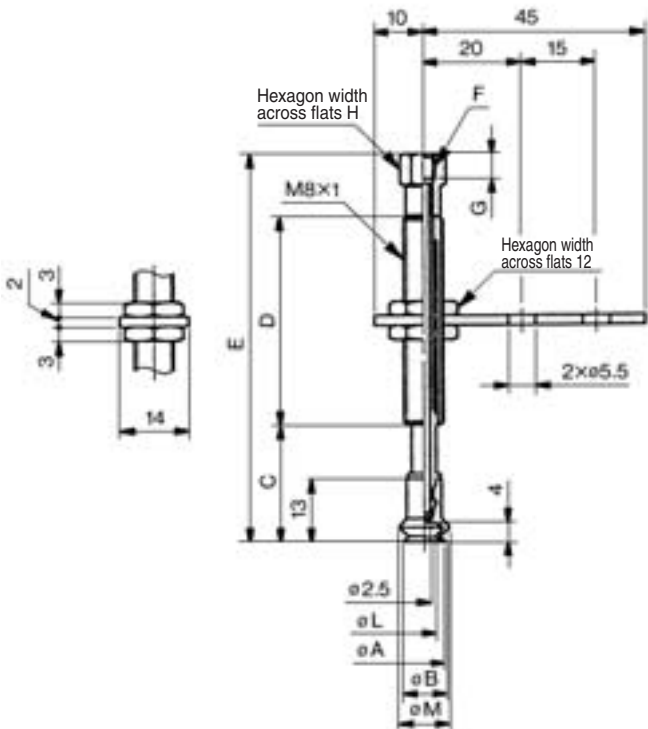
Model	E	G: M5 x 0.8			G: 1/8 (Rc, NPT, NPTF)		K
		F	H	J	F	J	
ZPT40D□□□10-□□□□- A14	55	120	5	10	121.5	13	50
ZPT40D□□□20-□□□□- A14	65	124			127		
ZPT40D□□□30-□□□□- A14	75	134			137		
ZPT40D□□□50-□□□□- A14	95	179			182		
							75

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

Series **ZPT**

Connection	Female thread (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø6, ø8



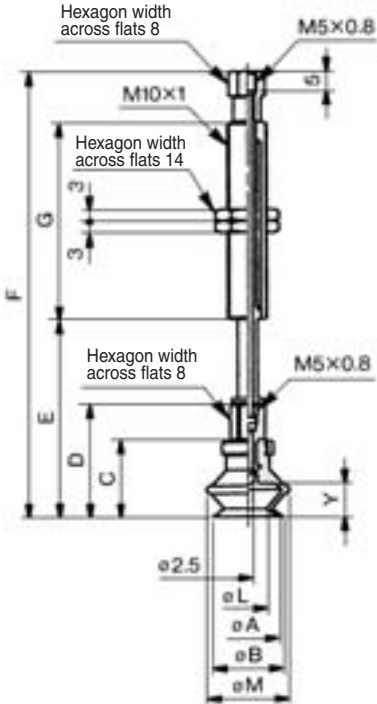
ø6, ø8
Bellows

Model	A	B	L	M
ZPT06B□□□□-B□-A8	6	7	3.3	9
ZPT08B□□□□-B□-A8	8	9	4.7	10

Dimensions by Stroke

Model	C	D	F: M3 x 0.5			F: M5 x 0.8		
			E	G	H	E	G	H
ZPT□□B□□□ 6-B□-A8	19	15	45	3	6	47	5	8
ZPT□□B□□□ 10-B□-A8	24	43	78			80		
ZPT□□B□□□ 15-B□-A8	29		83			85		
ZPT□□B□□□ 25-B□-A8	39		93			95		

Bellows/ø10, ø13, ø16



ø10, ø13, ø16
Bellows

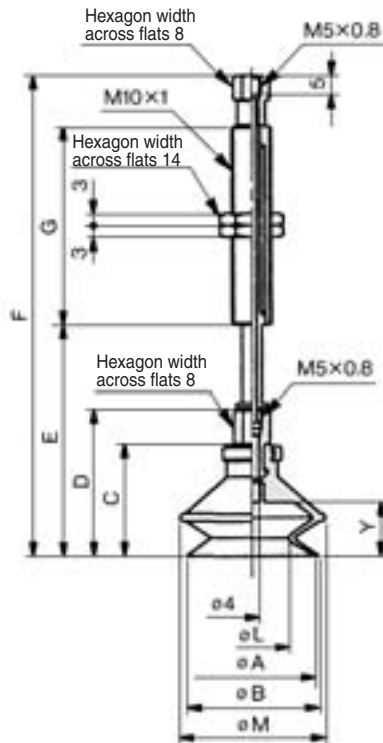
Model	A	B	C	D	L	M	Y
ZPT10B□□□□-B5-A10	10	12	16	25	6	14	5.5
ZPT13B□□□□-B5-A10	13	15	18.5	27.5	9	19	7.5
ZPT16B□□□□-B5-A10	16	18	20	29	10	21	8.5

Dimensions by Stroke

Model	ø10		ø13		ø16		G
	E	F	E	F	E	F	
ZPT□□B□□□ 10-B5-A10	36.5	72.5	39	75	40.5	76.5	23
ZPT□□B□□□ 20-B5-A10	46.5	110.5	49	113	50.5	114.5	51
ZPT□□B□□□ 30-B5-A10	56.5	120.5	59	123	60.5	124.5	
ZPT□□B□□□ 40-B5-A10	66.5	156.5	69	159	70.5	160.5	77
ZPT□□B□□□ 50-B5-A10	76.5	166.5	79	169	80.5	170.5	

Connection	Female thread (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø20, ø25, ø32



ø20, ø25, ø32

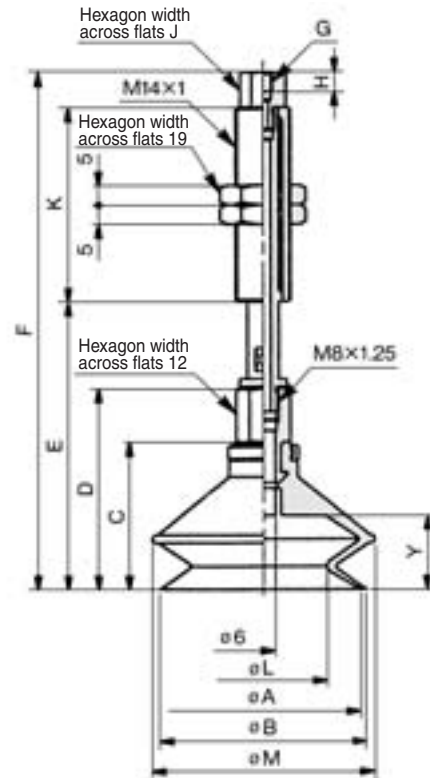
Bellows

Model	A	B	C	D	L	M	Y
ZPT20B□□□□□-B5-A10	20	22	23.5	32.5	12	25	10.5
ZPT25B□□□□□-B5-A10	25	27	24	33	16	28	
ZPT32B□□□□□-B5-A10	32	34	29	38	19	37	

Dimensions by Stroke

Model	ø20		ø25		ø32		G
	E	F	E	F	E	F	
ZPT□□B□□□□10-B5-A10	44	80	44.5	80.5	49.5	85.5	23
ZPT□□B□□□□20-B5-A10	54	118	54.5	118.5	59.5	123.5	51
ZPT□□B□□□□30-B5-A10	64	128	64.5	128.5	69.5	133.5	
ZPT□□B□□□□40-B5-A10	74	164	74.5	164.5	79.5	169.5	77
ZPT□□B□□□□50-B5-A10	84	174	84.5	174.5	89.5	179.5	

Bellows/ø40, ø50



ø40, ø50

Bellows

Model	A	B	C	D	L	M	Y
ZPT40B□□□□□-□□□-A14	40	43	34	47.5	24	48	16
ZPT50B□□□□□-□□□-A14	50	53	38	51.5	32	57	19

Dimensions by Stroke

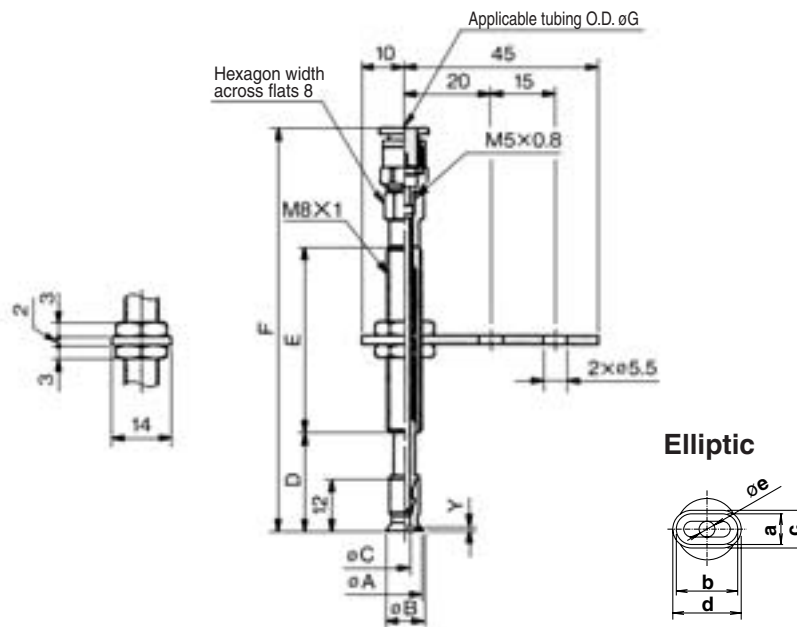
Model	E		G: M5 x 0.8				G: 1/8 (Rc, NPT, NPTF)				K
	ø40	ø50	F		H	J	F		J		
			ø40	ø50			ø40	ø50			
ZPT□□B□□□10-□□□-A14	60	64	125	129	5	10	126.5	130.5	13	50	
ZPT□□B□□□20-□□□-A14	70	74	129	133			132	136			
ZPT□□B□□□30-□□□-A14	80	84	139	143			142	146			
ZPT□□B□□□50-□□□-A14	100	104	184	188			187	191			75

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ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP
Related Equipment

Series ZPT

Connection	One-touch fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep/Thin flat Thin flat with ribs/Elliptic
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/ø2, ø4, ø6, ø8, Thin flat/Flat with ribs/ø10, ø13, ø16, Elliptic/2004, 3507, 4010



Flat

Model	A	B	C	Y
ZPT02U□□□□□-0□-A8	2	2.6	1.2	0.5
ZPT04U□□□□□-0□-A8	4	4.8	1.6	0.8
ZPT06U□□□□□-0□-A8	6	7	2.5	1
ZPT08U□□□□□-0□-A8	8	9		

Dimensions by Stroke

Model	D	E	F	
			G: 4	G: 6
ZPT  6-0  -A8	18	15	60	61
ZPT  10-0  -A8	23	43	93	94
ZPT  15-0  -A8	28		98	99
ZPT  25-0  -A8	38		108	109

Elliptic

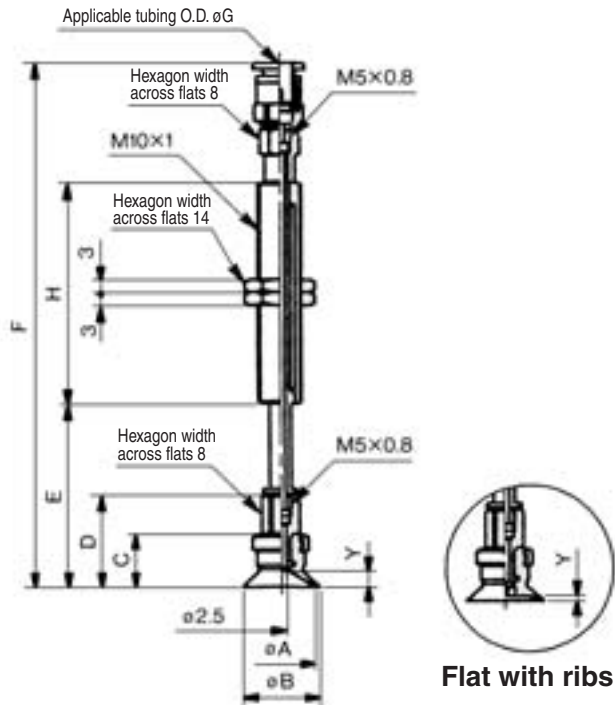
Model	a	b	c	d	øe	Y
ZPT2004U	2	4	2.6	4.6	1.2	0.3
ZPT3507U	3.5	7	4.3	7.8	1.8	0.5
ZPT4010U	4	10	5	11	2	0.8

Thin Flat/Thin Flat with Ribs

Model	A	B	C	Y
ZPT10UT	10	11	2.5	1
ZPT13UT	13	14		1.5
ZPT16UT	16	17		0.8
ZPT10CT	10	11		1
ZPT13CT	13	14		
ZPT16CT	16	17		

Connection	One-touch fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø10, ø13, ø16



ø10, ø13, ø16

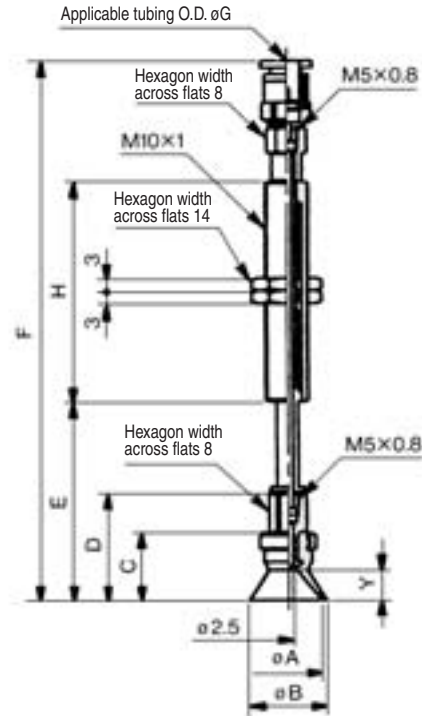
Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT10 ^U _C □ □ □ □ □ -0 □ -A10	10	12	12	21	3	1.7
ZPT13 ^U _C □ □ □ □ □ -0 □ -A10	13	15				1.8
ZPT16 ^U _C □ □ □ □ □ -0 □ -A10	16	18	12.5	21.5	3.5	1.2

Dimensions by Stroke

Model	ø10, ø13			ø16			H
	E	F		E	F		
		G: 4	G: 6		G: 4	G: 6	
ZPT□□ ^U _C □□□□10-0□-A10	32.5	82.5	83.5	33	83	84	23
ZPT□□ ^U _C □□□□20-0□-A10	42.5	120.5	121.5	43	121	122	51
ZPT□□ ^U _C □□□□30-0□-A10	52.5	130.5	131.5	53	131	132	
ZPT□□ ^U _C □□□□40-0□-A10	62.5	166.5	167.5	63	167	168	77
ZPT□□ ^U _C □□□□50-0□-A10	72.5	176.5	177.5	73	177	178	

Deep/ø10, ø16



ø10, ø16

Deep

Model	A	B	C	D	Y
ZPT10D □ □ □ □ □ -0 □ -A10	10	12	15	24	6
ZPT16D □ □ □ □ □ -0 □ -A10	16	18	16	25	7

Dimensions by Stroke

Model	ø10			ø16			H
	E	F		E	F		
		G: 4	G: 6		G: 4	G: 6	
ZPT□□D□□□10-0□-A10	35.5	85.5	86.5	36.5	86.5	87.5	23
ZPT□□D□□□20-0□-A10	45.5	123.5	124.5	46.5	124.5	125.5	51
ZPT□□D□□□30-0□-A10	55.5	133.5	134.5	56.5	134.5	135.5	
ZPT□□D□□□40-0□-A10	65.5	169.5	170.5	66.5	170.5	171.5	77
ZPT□□D□□□50-0□-A10	75.5	179.5	180.5	76.5	180.5	181.5	

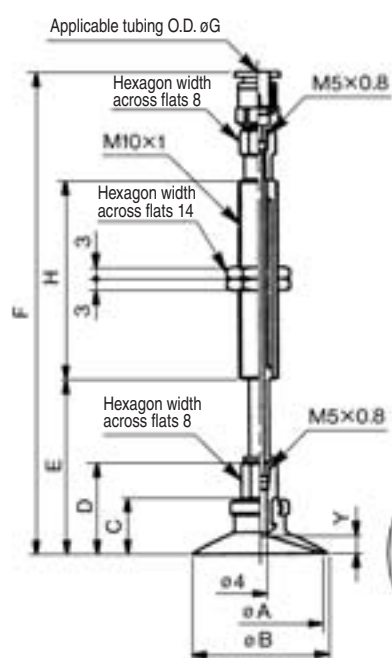
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SP
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AMJ
AMV
AEP
HEP

Related Equipment

Series ZPT

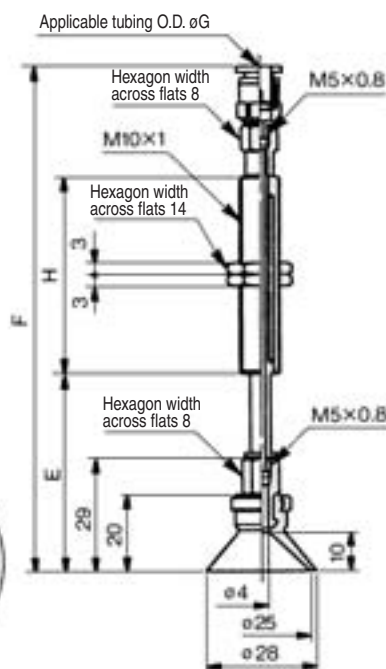
Connection	One-touch fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø20, ø25, ø32



Flat with ribs

Deep/ø25



ø20, ø25, ø32

Flat Type/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT20 ^U _C □ □ □ □ □ -0 □ -A10	20	23	14	23	4	1.7
ZPT25 ^U _C □ □ □ □ □ -0 □ -A10	25	28				1.8
ZPT32 ^U _C □ □ □ □ □ -0 □ -A10	32	35	14.5	23.5	4.5	2.3

Dimensions by Stroke

Model	ø20, ø25			ø32			H
	E	F		E	F		
		G: 4	G: 6		G: 4	G: 6	
ZPT□□ ^U _C □□□10-0□-A10	34.5	84.5	85.5	35	85	86	23
ZPT□□□ ^U _C □□□20-0□-A10	44.5	122.5	123.5	45	123	124	51
ZPT□□□ ^U _C □□□30-0□-A10	54.5	132.5	133.5	55	133	134	
ZPT□□□ ^U _C □□□40-0□-A10	64.5	168.5	169.5	65	169	170	77
ZPT□□□ ^U _C □□□50-0□-A10	74.5	178.5	179.5	75	179	180	

ø25

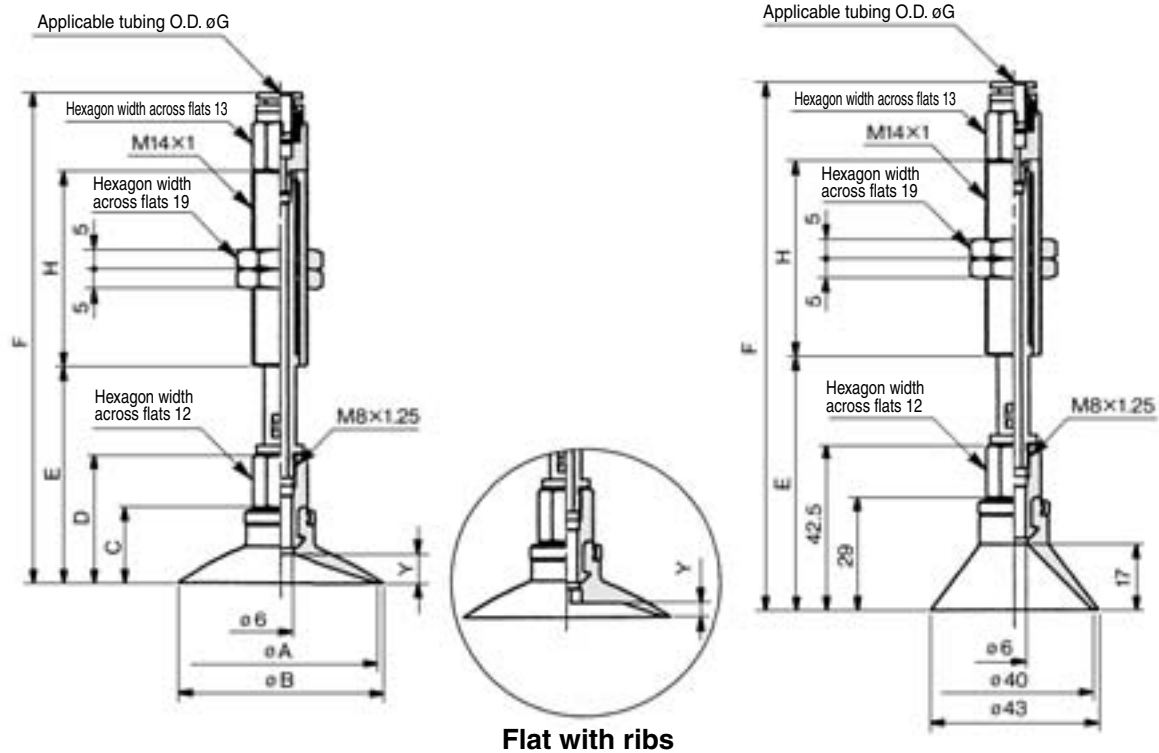
Deep

Model	E	F		H
		G: 4	G: 6	
ZPT25D □ □ □ □ 10-0 □ -A10	40.5	90.5	91.5	23
ZPT25D □ □ □ □ 20-0 □ -A10	50.5	128.5	129.5	51
ZPT25D □ □ □ □ 30-0 □ -A10	60.5	138.5	139.5	
ZPT25D □ □ □ □ 40-0 □ -A10	70.5	174.5	175.5	77
ZPT25D □ □ □ □ 50-0 □ -A10	80.5	184.5	185.5	

Connection	One-touch fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø40, ø50

Deep/ø40



ø40, ø50

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT40 ^U _C □□□□-0□-A14	40	43	18.5	32	6.5	3.3
ZPT50 ^U _C □□□□-0□-A14	50	53	19.5	33	7.5	3.8

Dimensions by Stroke

Model	ø40			ø50			H
	E	F		E	F		
		G: 6	G: 8		G: 6	G: 8	
ZPT□□ ^U _C □□□□10-0□-A14	44.5	129.5	135	45.5	130.5	136	50
ZPT□□ ^U _C □□□□20-0□-A14	54.5	124.4	129.4	55.5	125.4	130.4	
ZPT□□ ^U _C □□□□30-0□-A14	64.5	134.4	139.4	65.5	135.4	140.4	
ZPT□□ ^U _C □□□□50-0□-A14	84.5	179.4	184.4	85.5	180.4	185.4	75

ø40

Deep

Model	E	F		H
		G: 6	G: 8	
ZPT40D□□□□10-0□-A14	55	140	145.5	50
ZPT40D□□□□20-0□-A14	65	134.9	139.9	
ZPT40D□□□□30-0□-A14	75	144.9	149.9	
ZPT40D□□□□50-0□-A14	95	189.9	194.9	

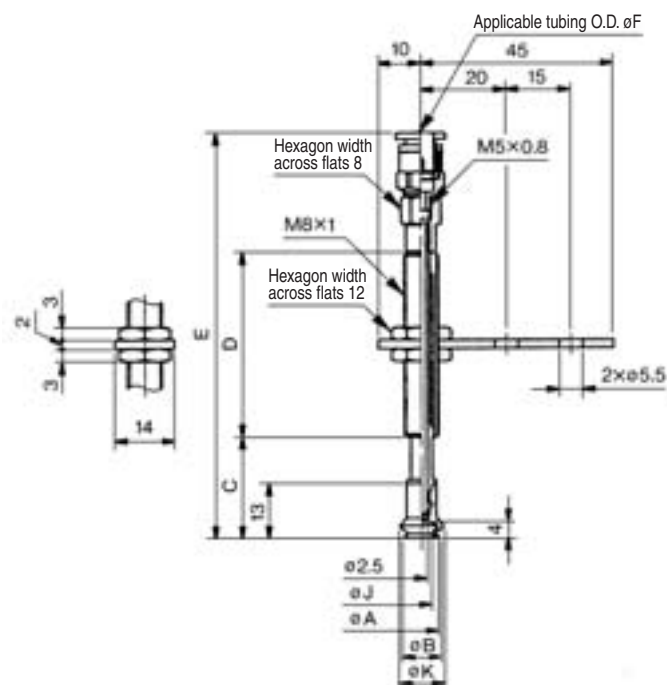
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ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP

Related
Equipment

Series ZPT

Connection	One-touch fitting (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø6, ø8



ø6, ø8

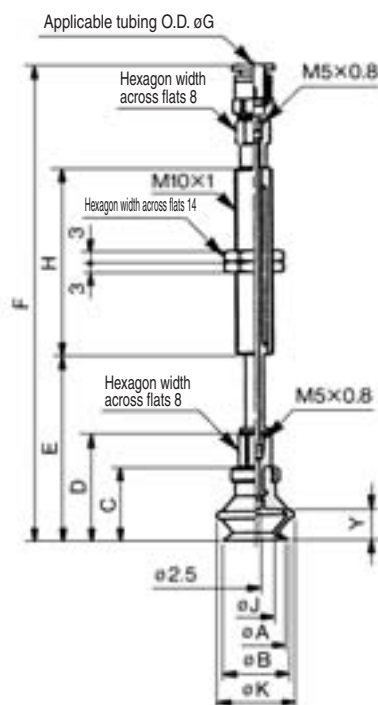
Bellows

Model	A	B	J	K
ZPT06B□□□□□-0□-A8	6	7	3.3	9
ZPT08B□□□□□-0□-A8	8	9	4.7	10

Dimensions by Stroke

Model	C	D	E	
			F: 4	F: 6
ZPT□□B□□□□ 6-0□-A8	19	15	61	62
ZPT□□B□□□□ 10-0□-A8	24	43	94	95
ZPT□□B□□□□ 15-0□-A8	29	43	99	100
ZPT□□B□□□□ 25-0□-A8	39	43	109	110

Bellows/ø10, ø13, ø16



ø10, ø13, ø16

Bellows

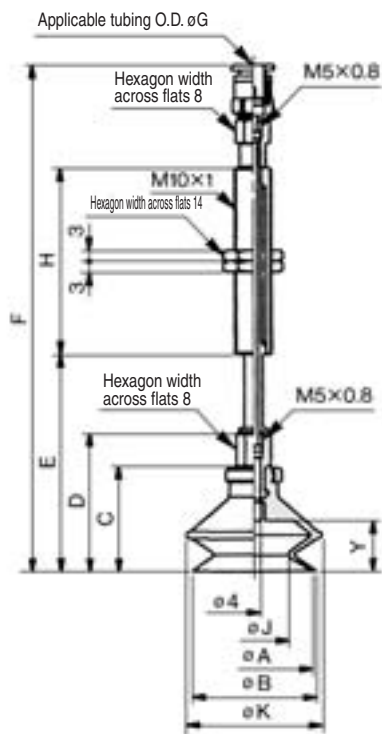
Model	A	B	C	D	J	K	Y
ZPT10B□□□□□-0□-A10	10	12	16	25	6	14	5.5
ZPT13B□□□□□-0□-A10	13	15	18.5	27.5	9	19	7.5
ZPT16B□□□□□-0□-A10	16	18	20	29	10	21	8.5

Dimensions by Stroke

Model	ø10			ø13			ø16			H
	E	F		E	F		E	F		
		G: 4	G: 6		G: 4	G: 6		G: 4	G: 6	
ZPT□□B□□□10-0□-A10	36.5	86.5	87.5	39	89	90	40.5	90.5	91.5	23
ZPT□□B□□□20-0□-A10	46.5	124.5	125.5	49	127	128	50.5	128.5	129.5	51
ZPT□□B□□□30-0□-A10	56.5	134.5	135.5	59	137	138	60.5	138.5	139.5	
ZPT□□B□□□40-0□-A10	66.5	170.5	171.5	69	173	174	70.5	174.5	185.5	77
ZPT□□B□□□50-0□-A10	76.5	180.5	181.5	79	183	184	80.5	184.5	185.5	

Connection	One-touch fitting (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø20, ø25, ø32



ø20, ø25, ø32

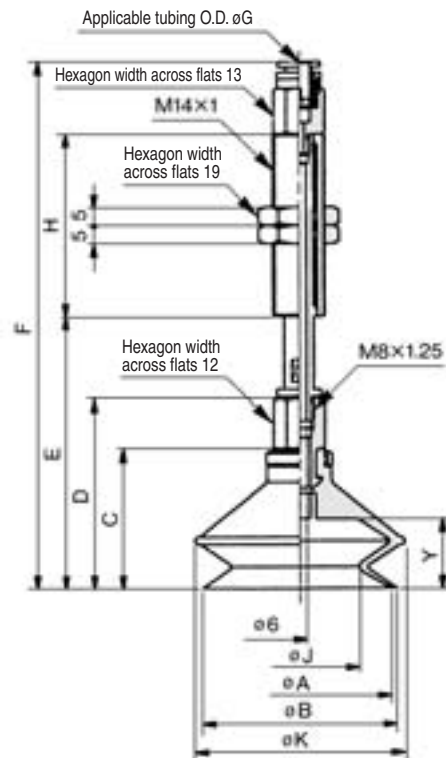
Bellows

Model	A	B	C	D	J	K	Y
ZPT20B□□□□-0□-A10	20	22	23.5	32.5	12	25	10.5
ZPT25B□□□□-0□-A10	25	27	24	33	16	28	
ZPT32B□□□□-0□-A10	32	34	29	38	19	37	14

Dimensions by Stroke

Model	ø20			ø25			ø32			H
	E	F		E	F		E	F		
		G: 4	G: 6		G: 4	G: 6		G: 4	G: 6	
ZPT□□B□□□10-0□-A10	44	94	95	44.5	94.5	95.5	49.5	99.5	100.5	23
ZPT□□B□□□20-0□-A10	54	132	133	54.5	132.5	133.5	59.5	137.5	138.5	51
ZPT□□B□□□30-0□-A10	64	142	143	64.5	142.5	143.5	69.5	147.5	148.5	77
ZPT□□B□□□40-0□-A10	74	178	179	74.5	178.5	179.5	79.5	183.5	184.5	
ZPT□□B□□□50-0□-A10	84	188	189	84.5	188.5	189.5	89.5	193.5	194.5	

Bellows/ø40, ø50



ø40, ø50

Bellows

Model	A	B	C	D	J	K	Y
ZPT40B□□□□-0□-A14	40	43	34	47.5	24	48	16
ZPT50B□□□□-0□-A14	50	53	38	51.5	32	57	19

Dimensions by Stroke

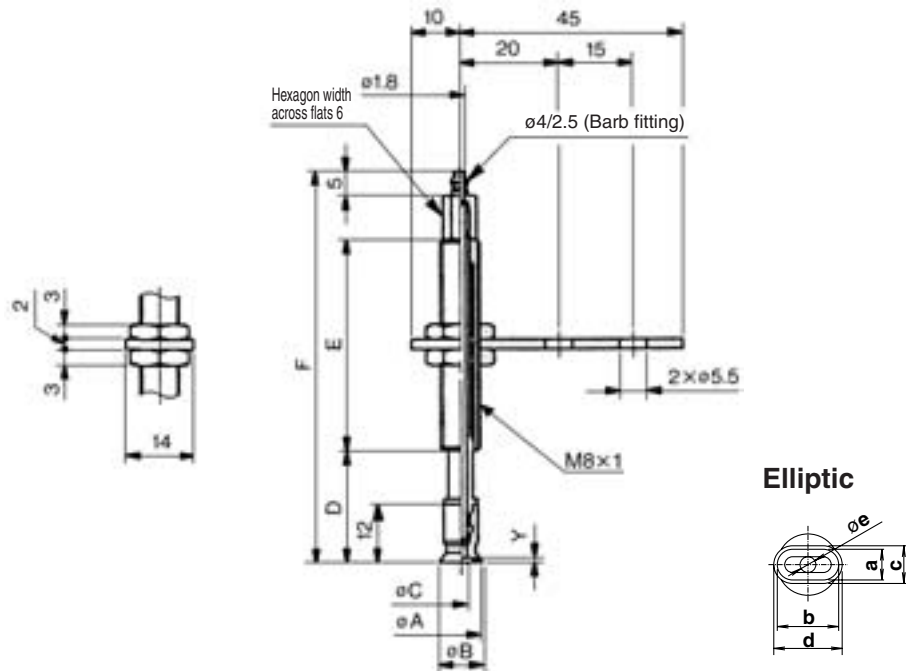
Model	ø40			ø50			H
	E	F		E	F		
		G: 6	G: 8		G: 6	G: 8	
ZPT□□B□□□10-0□-A14	60	145	150.5	64	149	154.5	50
ZPT□□B□□□20-0□-A14	70	139.9	144.9	74	143.9	148.9	
ZPT□□B□□□30-0□-A14	80	149.9	154.9	84	153.9	158.9	
ZPT□□B□□□50-0□-A14	100	194.9	199.9	104	198.9	203.9	75

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AEP
HEP
Related Equipment

Series ZPT

Connection	Barb fitting (Buffer)	Pad Form	Flat/Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/ø2, ø4, ø6, ø8, Thin flat/Thin flat with ribs/ø10, ø13, ø16, Elliptic/2004, 3507, 4010



Flat

Model	A	B	C	Y
ZPT02U□□□□□-□4-A8	2	2.6	1.2	0.5
ZPT04U□□□□□-□4-A8	4	4.8	1.6	0.8
ZPT06U□□□□□-□4-A8	6	7	2.5	1
ZPT08U□□□□□-□4-A8	8	9		

Dimensions by Stroke

Model	D	E	F
ZPT□□□□□6-□4-A8	18	15	47
ZPT□□□□□□10-□4-A8	23	43	80
ZPT□□□□□□15-□4-A8	28		85
ZPT□□□□□□25-□4-A8	38		95

Elliptic

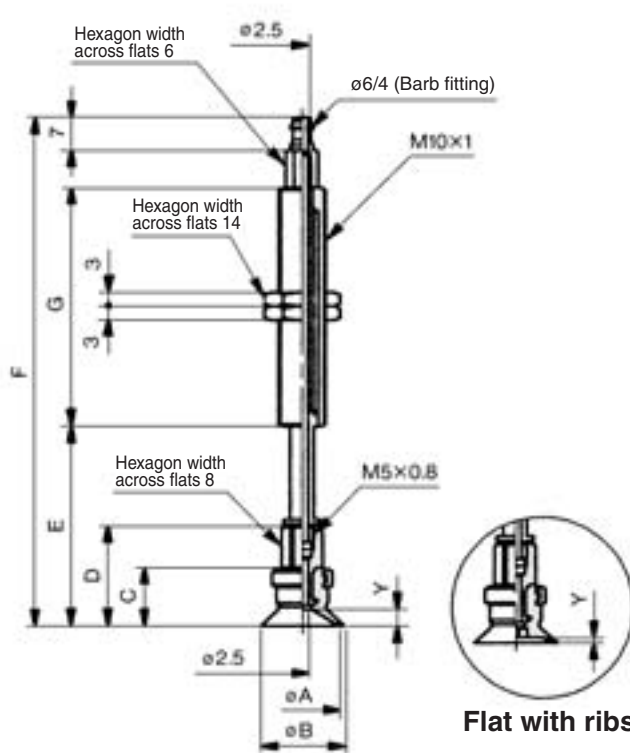
Model	a	b	c	d	e	Y
ZPT2004U	2	4	2.6	4.6	1.2	0.3
ZPT3507U	3.5	7	4.3	7.8	1.8	0.5
ZPT4010U	4	10	5	11	2	0.8

Thin Flat/Thin Flat with Ribs

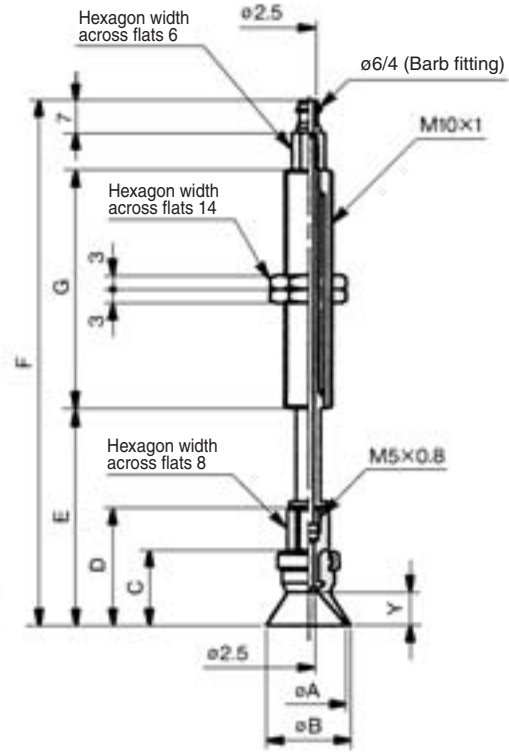
Model	A	B	C	Y
ZPT10UT  	10	11	2.5	1
ZPT13UT  	13	14		1.5
ZPT16UT  	16	17		
ZPT10CT  	10	11		0.8
ZPT13CT  	13	14		
ZPT16CT  	16	17		1

Connection	Barb fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø10, ø13, ø16



Deep/ø10, ø16



ø10, ø13, ø16

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT10 ^U _C □□□□□□-□6-A10	10	12	12	21	3	1.7
ZPT13 ^U _C □□□□□□-□6-A10	13	15				1.8
ZPT16 ^U _C □□□□□□-□6-A10	16	18	12.5	21.5	3.5	1.2

Dimensions by Stroke

Model	ø10, ø13		ø16		G
	E	F	E	F	
ZPT□□ ^U _C □□□□10-□6-A10	32.5	70.5	33	71	23
ZPT□□ ^U _C □□□□20-□6-A10	42.5	108.5	43	109	51
ZPT□□ ^U _C □□□□30-□6-A10	52.5	118.5	53	119	
ZPT□□ ^U _C □□□□40-□6-A10	62.5	154.5	63	155	77
ZPT□□ ^U _C □□□□50-□6-A10	72.5	164.5	73	165	

ø10, ø16

Deep

Model	A	B	C	D	Y
ZPT10D□□□□□□-□6-A10	10	12	15	24	6
ZPT16D□□□□□□-□6-A10	16	18	16	25	7

Dimensions by Stroke

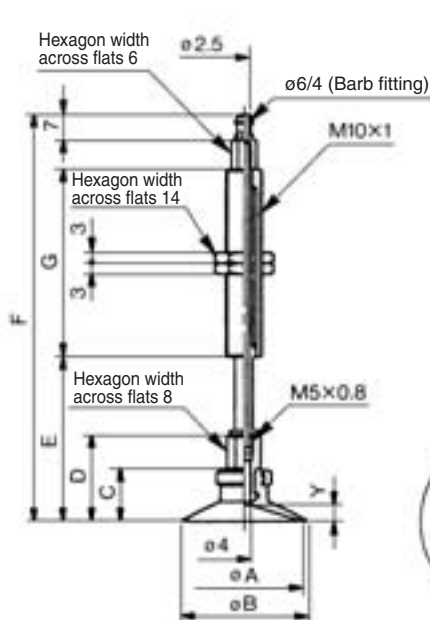
Model	ø10		ø16		G
	E	F	E	F	
ZPT□□D□□□□10-□6-A10	35.5	73.5	36.5	74.5	23
ZPT□□D□□□□20-□6-A10	45.5	111.5	46.5	112.5	51
ZPT□□D□□□□30-□6-A10	55.5	121.5	56.5	122.5	
ZPT□□D□□□□40-□6-A10	65.5	157.7	66.5	158.5	77
ZPT□□D□□□□50-□6-A10	75.5	167.5	76.5	168.5	

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

Series ZPT

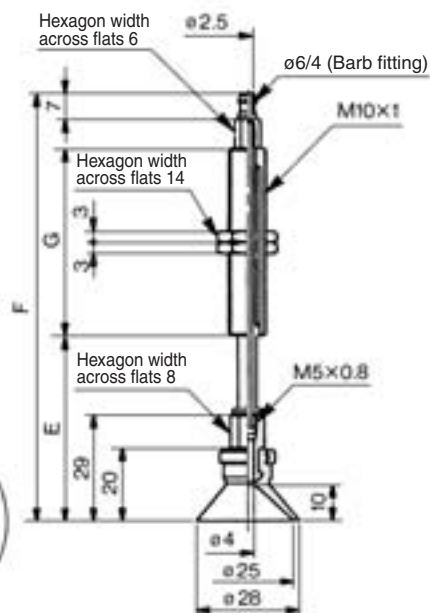
Connection	Barb fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø20, ø25, ø32



Flat with ribs

Deep/ø25



ø20, ø25, ø32

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT20 _C □□□□□□□□□□6-A10	20	23	14	23	4	1.7
ZPT25 _C □□□□□□□□□□6-A10	25	28				1.8
ZPT32 _C □□□□□□□□□□6-A10	32	35	14.5	23.5	4.5	2.3

Dimensions by Stroke

Model	ø20, ø25		ø32		G
	E	F	E	F	
ZPT□□□□□□□□□□10-□□6-A10	34.5	72.5	35	73	23
ZPT□□□□□□□□□□20-□□6-A10	44.5	110.5	45	111	51
ZPT□□□□□□□□□□30-□□6-A10	54.5	120.5	55	121	
ZPT□□□□□□□□□□40-□□6-A10	64.5	156.5	65	157	77
ZPT□□□□□□□□□□50-□□6-A10	74.5	166.5	75	167	

ø25

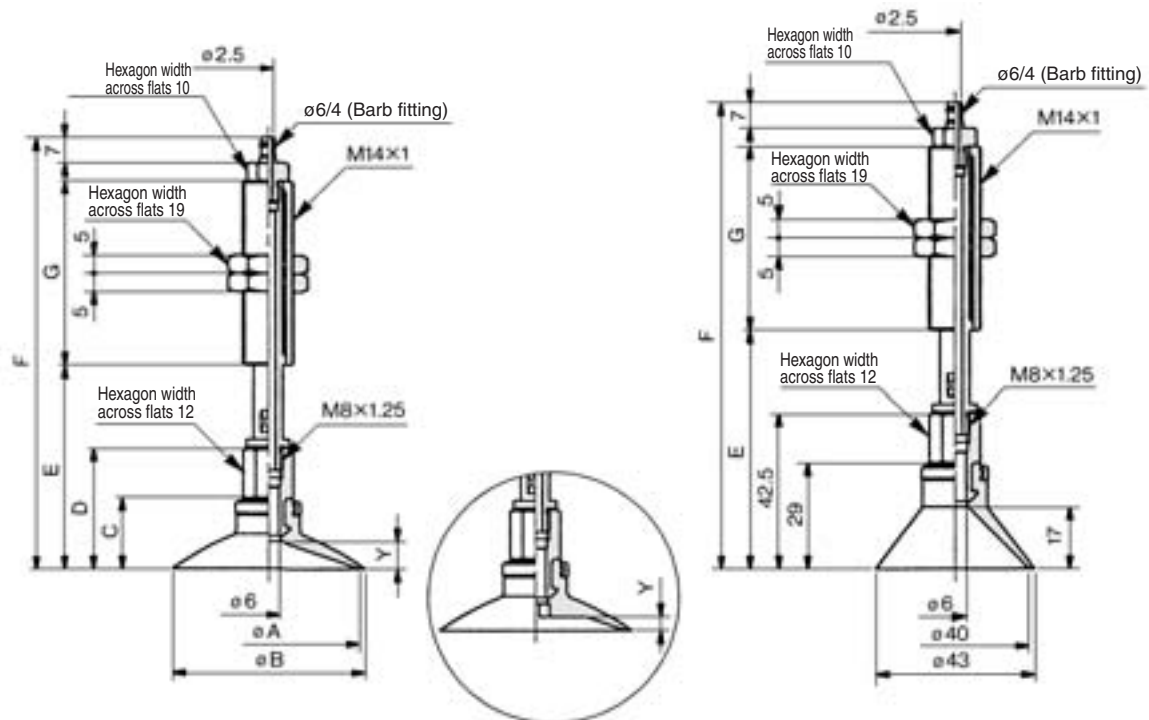
Deep

Model	E	F	G
ZPT25D□□□□10-□□6-A10	40.5	78.5	23
ZPT25D□□□□20-□□6-A10	50.5	116.5	51
ZPT25D□□□□30-□□6-A10	60.5	126.5	
ZPT25D□□□□40-□□6-A10	70.5	162.5	77
ZPT25D□□□□50-□□6-A10	80.5	172.5	

Connection	Barb fitting (Buffer)	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Vertical	Mounting	Buffer body

Flat/Flat with ribs/ø40, ø50

Deep/ø40



Flat with ribs

ø40, ø50

Flat/Flat with Ribs

Model	A	B	C	D	Y	
					Flat	Flat with ribs
ZPT40 _C □□□□□□□□□□6-A14	40	43	18.5	32	6.5	3.3
ZPT50 _C □□□□□□□□□□6-A14	50	53	19.5	33	7.5	3.8

Dimensions by Stroke

Model	ø40		ø50		G
	E	F	E	F	
ZPT□□□□□□□□□□10-□6-A14	44.5	113.5	45.5	114.5	50
ZPT□□□□□□□□□□20-□6-A14	54.5	116.5	55.5	117.5	
ZPT□□□□□□□□□□30-□6-A14	64.5	126.5	65.5	127.5	
ZPT□□□□□□□□□□50-□6-A14	84.5	171.5	85.5	172.5	75

ø40

Deep

Model	E	F	G
ZPT40D□□□□10-□6-A14	55	124	50
ZPT40D□□□□20-□6-A14	65	127	
ZPT40D□□□□30-□6-A14	75	137	
ZPT40D□□□□50-□6-A14	95	182	75

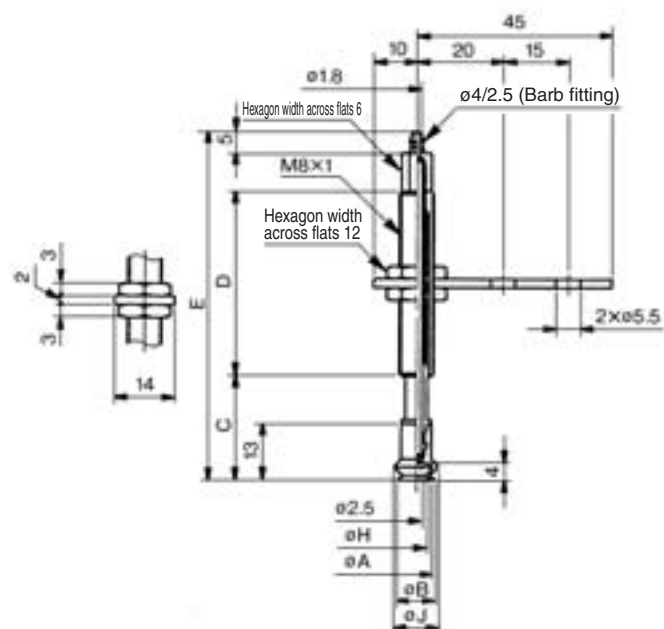
ZA
ZX
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ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP

Related
Equipment

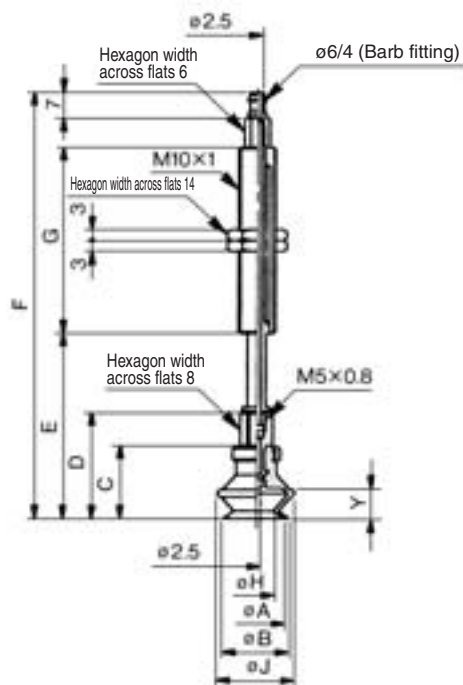
Series ZPT

Connection	Barb fitting (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø6, ø8



Bellows/ø10, ø13, ø16



Ø6, Ø8

Bellows

Model	A	B	H	J
ZPT06B  - 4-A8	6	7	3.3	9
ZPT08B  - 4-A8	8	9	4.7	10

Dimensions by Stroke

Model	C	D	E
ZPT□□B□□□ 6-□4-A8	19	15	48
ZPT□□B□□□ 10-□4-A8	24	43	81
ZPT□□B□□□ 15-□4-A8	29		86
ZPT□□B□□□ 25-□4-A8	39		96

Ø10, Ø13, Ø16

Bellows

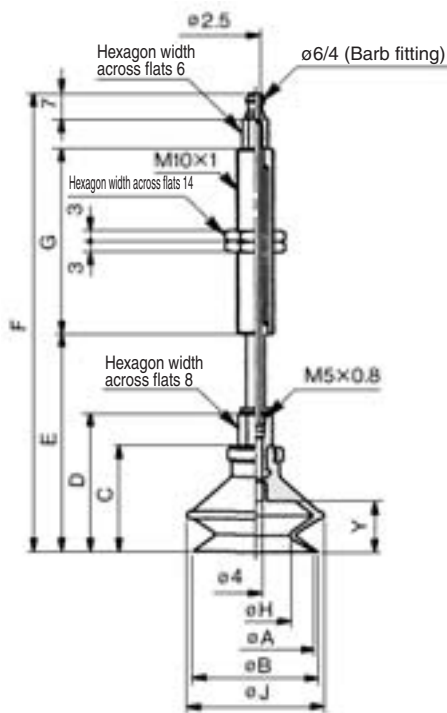
Model	A	B	C	D	H	J	Y
ZPT10B □□□□□-□ 6-A10	10	12	16	25	6	14	5.5
ZPT13B □□□□□-□ 6-A10	13	15	18.5	27.5	9	19	7.5
ZPT16B □□□□□-□ 6-A10	16	18	20	29	10	21	8.5

Dimensions by Stroke

Model	ø10		ø13		ø16		G
	E	F	E	F	E	F	
ZPT□□B□□□10-□6-A10	36.5	74.5	39	77	40.5	78.5	23
ZPT□□B□□□20-□6-A10	46.5	112.5	49	115	50.5	116.5	51
ZPT□□B□□□30-□6-A10	56.5	122.5	59	125	60.5	126.5	
ZPT□□B□□□40-□6-A10	66.5	158.5	69	161	70.5	162.5	77
ZPT□□B□□□50-□6-A10	76.5	168.5	79	171	80.5	172.5	

Connection	Barb fitting (Buffer)	Pad Form	Bellows
Vacuum Entry Port	Vertical	Mounting	Buffer body

Bellows/ø20, ø25, ø32



ø20, ø25, ø32

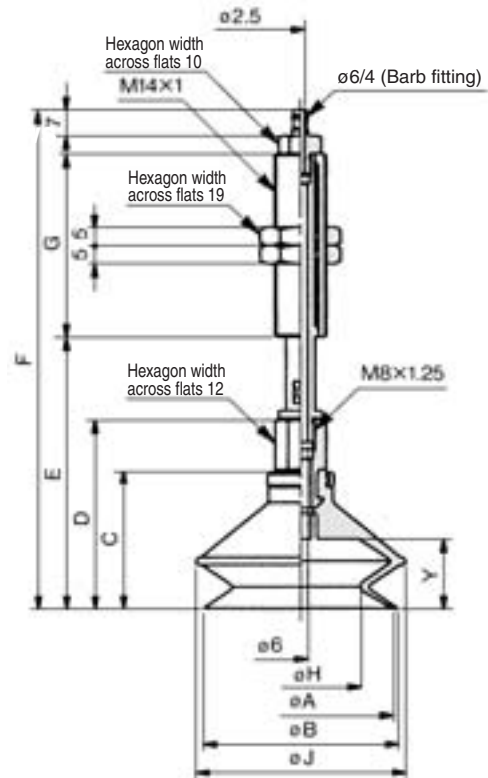
Bellows

Model	A	B	C	D	H	J	Y
ZPT20B□□□□□□-□6-A10	20	22	23.5	32.5	12	25	10.5
ZPT25B□□□□□□-□6-A10	25	27	24	33	16	28	
ZPT32B□□□□□□-□6-A10	32	34	29	38	19	37	

Dimensions by Stroke

Model	ø20		ø25		ø32		G
	E	F	E	F	E	F	
ZPT□□B□□□□10-□6-A10	44	82	44.5	82.5	49.5	87.5	23
ZPT□□B□□□□20-□6-A10	54	120	54.5	120.5	59.5	125.5	51
ZPT□□B□□□□30-□6-A10	64	130	64.5	130.5	69.5	135.5	
ZPT□□B□□□□40-□6-A10	74	166	74.5	166.5	79.5	171.5	77
ZPT□□B□□□□50-□6-A10	84	176	84.5	176.5	89.5	181.5	

Bellows/ø40, ø50



ø40, ø50

Bellows

Model	A	B	C	D	H	J	Y
ZPT40B□□□□□□-□6-A14	40	43	34	47.5	24	48	16
ZPT50B□□□□□□-□6-A14	50	53	38	51.5	32	57	19

Dimensions by Stroke

Model	ø40		ø50		G
	E	F	E	F	
ZPT□□B□□□□10-□6-A14	60	129	64	133	50
ZPT□□B□□□□20-□6-A14	70	132	74	136	
ZPT□□B□□□□30-□6-A14	80	142	84	146	
ZPT□□B□□□□50-□6-A14	100	187	104	191	

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ZF□
ZP□
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ZCUK
AMJ
AMV
AEP
HEP

Related
Equipment



Vacuum Pad/ Lateral Vacuum Entry with One-touch Fitting Without Buffer

Series ZPR

RoHS



Specifications

Vacuum entry	Direction		Lateral	
	Connection		One-touch fitting	
	Applicable tube dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8	ø4, ø6 tube	
		ø10 to ø16	ø4, ø6 tube	
		ø20 to ø32	ø4, ø6, ø8 tube	
		ø40 to ø50	ø6, ø8 tube	
Mounting	Connection		Male thread	Female thread
	Thread dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8	M5 x 0.8, M6 x 1	M4 x 0.7, M5 x 0.8
		ø10 to ø16	M5 x 0.8, M6 x 1	M5 x 0.8, M6 x 1
		ø20 to ø32	M6 x 1, M8 x 1	M5 x 0.8, M6 x 1, M8 x 1.25
		ø40 to ø50	M6 x 1, M8 x 1	M6 x 1, M8 x 1.25

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad diameter (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluororubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Mass/Male Thread (Female thread)

Model	Pad form Connection	Flat				Flat with ribs			Deep			Bellows			
		M4	M5	M6	M8	M5	M6	M8	M5	M6	M8	M4	M5	M6	M8
ZPR02 to 08 2004, 3507, 4010 Thin section series 10 to 16	— (19)	26 (20)	27 (—)	—	—	—	—	—	—	—	(19) (Except ø2, ø4)	26 (20) (Except ø2, ø4)	27 (—) (Except ø2, ø4)	—	
ZPR10	—	29 (23)	31 (21)	—	29 (23)	31 (22)	—	29 (23)	30 (22)	—	—	29 (23)	31 (22)	—	
ZPR13								—	—	—					
ZPR16								31 (23)	31 (22)	—					
ZPR20	—	— (51)	57 (50)	61 (48)	— (51)	57 (50)	61 (48)	—	—	—	—	— (51)	57 (50)	61 (48)	
ZPR25								—	65 (50)	68 (48)					
ZPR32								—	—	—					
ZPR40	—	—	64 (56)	67 (54)	—	64 (56)	67 (54)	—	65 (57)	68 (55)	—	—	64 (56)	67 (54)	
ZPR50	—	—	66 (58)	69 (56)	—	67 (59)	70 (57)	—	—	—	—	—	66 (58)	69 (56)	

(): Figures for female thread connections.

How to Order

Series ZPR
Without buffer

ZPR Pad dia. **02** Pad type **U** Material **N** - Vacuum entry port **04** - Mounting thread **A5**

Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Pad type



(Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Mounting thread



(Refer to "Table (2)" for applications.)

Vacuum entry port



(Refer to "Table (2)" for applications.)

Table (2) Vacuum Entry/Mounting Thread Diameter

Connection		Symbol	Thread dia./ Port size	ø2 to ø8 2 x 4 3.5 x 7 4 x 10 ø10 to ø16 (Thin section series)	ø10 to ø16	ø20 to ø32	ø40 to ø50
Vacuum entry	One-touch fitting	04	ø4 tube	●	●	●	—
		06	ø6 tube	●	●	●	●
		08	ø8 tube	—	—	●	●
Mounting	Male thread fitting	A5	M5 x 0.8	●	●	—	—
		A6	M6 x 1	●	●	●	●
		A8	M8 x 1	—	—	●	●
	Female thread	B4	M4 x 0.7	●	—	—	—
		B5	M5 x 0.8	●	●	●	—
		B6	M6 x 1	—	●	●	●
		B8	M8 x 1.25	—	—	●	●

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Table (1) Pad Diameter/Pad Type

Type	Dia. (mm)															
	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50	
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●	
Deep	—	—	—	—	—	—	—	●	—	●	—	●	—	●	—	
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●	
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—	
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—	

ZA
ZX
ZR
ZM
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AMJ
AMV
AEP
HEP

Related Equipment

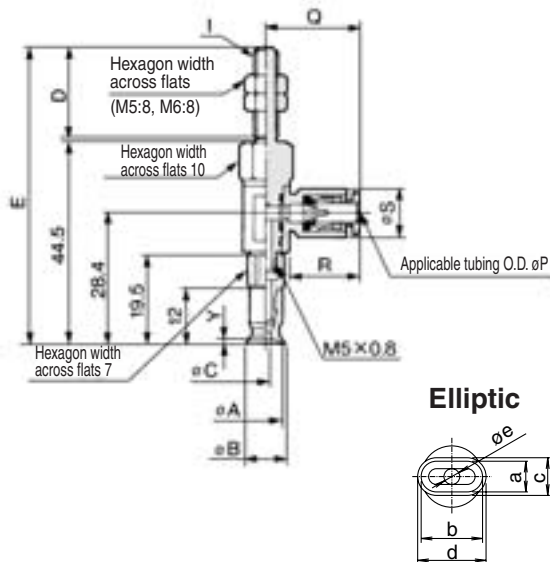
Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread

**Size/Flat ø2, ø4, ø6, ø8/Thin flat/Thin flat with ribs ø10, ø13, ø16/
Elliptic 2004, 3507, 4010**

Size/ø10, ø13, ø16

Flat/Thin flat/Thin flat with ribs



Flat

Model	A	B	C	I: M5 x 0.8		I: M6 x 1		Y
				D	E	D	E	
ZPR02U	2	2.6	1.2	20	65.5	25	70.5	0.5
ZPR04U	4	4.8	1.6					0.8
ZPR06U	6	7	2.5					
ZPR08U	8	9	2.5					1

Applicable Tubing

Applicable tubing O. D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Elliptic

Model	a	b	c	d	e	Y
ZPR2004U	2	4	2.6	4.6	1.2	0.3
ZPR3507U	3.5	7	4.3	7.8	1.8	0.5
ZPR4010U	4	10	5	11	2	0.8

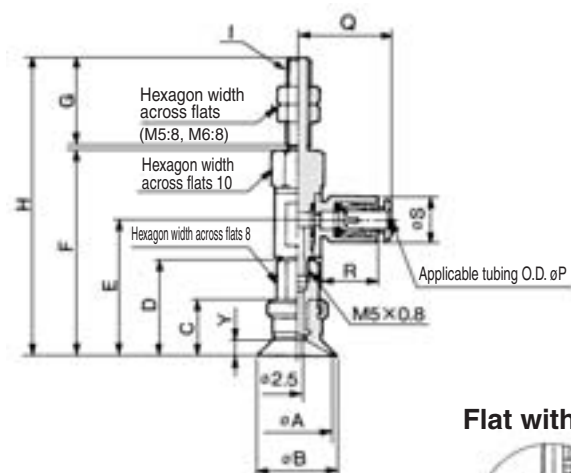
* Dimensions of D, E are the same.

Thin Flat/Thin Flat with Ribs

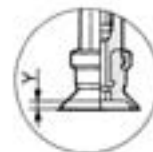
Model	A	B	Y
ZPR10UT	10	11	1
ZPR13UT	13	14	1.5
ZPR16UT	16	17	1.5
ZPR10CT	10	11	0.8
ZPR13CT	13	14	1
ZPR16CT	16	17	1

* Dimensions of D, E are the same.

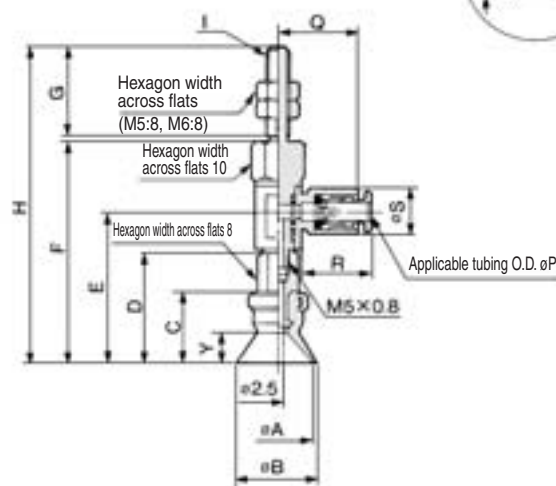
Flat



Flat with ribs



Deep: ZPR10D, 16D only



Flat/Flat with Ribs

Model	A	B	C	D	E	F	I: M5 x 0.8		I: M6 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR10 ^{UC}	10	12	12	21	29.9	46	20	67	25	72	3	1.7
ZPR13 ^{UC}	13	15										1.8
ZPR16 ^{UC}	16	18	12.5	21.5	30.4	46.5		67.5		72.5	3.5	1.2

Deep

Model	A	B	C	D	E	F	I: M5 x 0.8		I: M6 x 1		Y
							G	H	G	H	
ZPR10D	10	12	15	24	32.9	49	20	70	25	75	6
ZPR16D	16	18	16	25	33.9	50		71		76	7

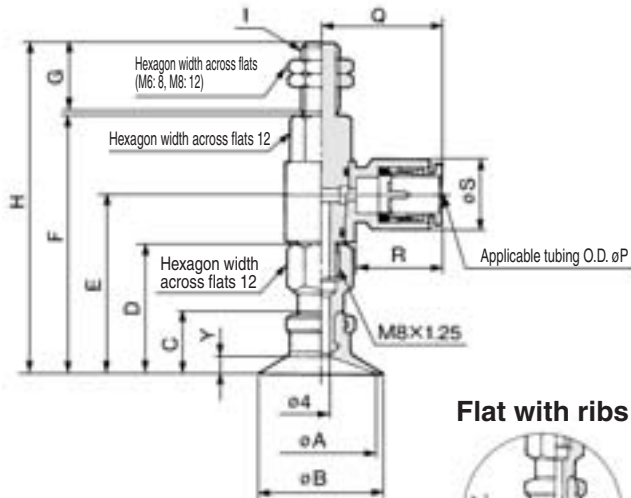
Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

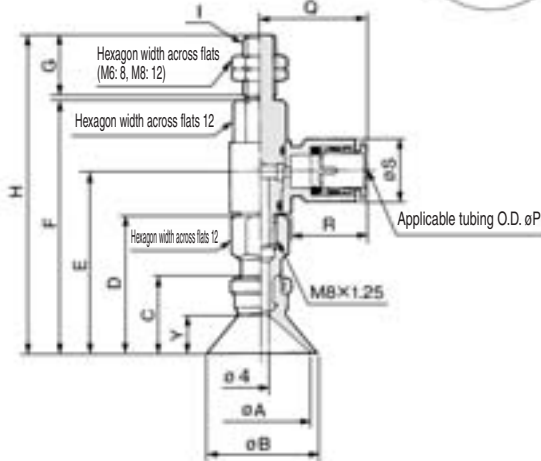
Vacuum Pad/ Lateral Vacuum Entry with One-touch Fitting without Buffer **Series ZPR**

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Size/ø20, ø25, ø32



Deep: ZPR25D only



Flat/Flat with Ribs

Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR20 ^{UC}	20	23										
ZPR25 ^{UC}	25	28	14	29	39.8	57.6	25	83.5	15	73.5	4	1.7
ZPR32 ^{UC}	32	35	14.5	29.5	40.3	58.1		84		74	4.5	2.3

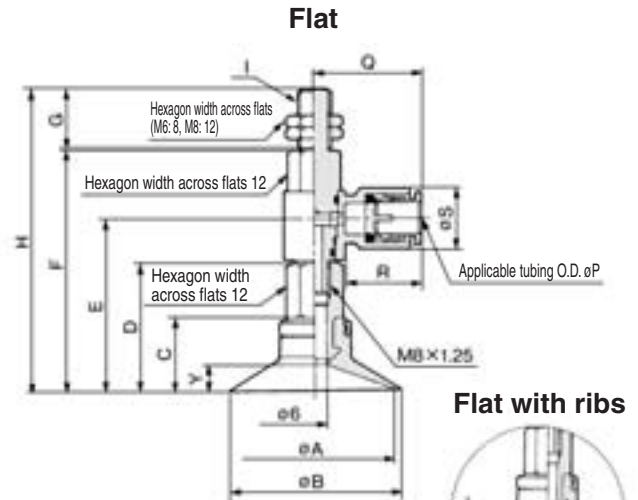
Deep

Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		Y
							G	H	G	H	
ZPR25D	25	28	20	35	48.5	63.6	25	89.5	15	79.5	10

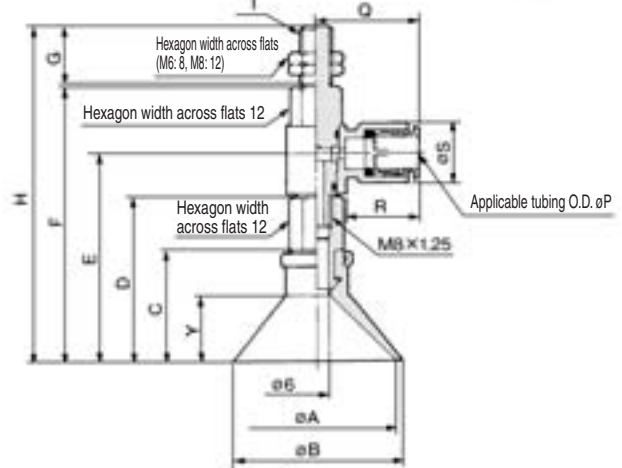
Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	23.3	15.8	10.4
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Size/ø40, ø50



Deep: ZPR40D only



Flat/Flat with Ribs

Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR40 ^{UC}	40	43	18.5	32	42.8	60.6						
ZPR50 ^{UC}	50	53	19.5	33	43.8	61.6	25	86.5	15	76.5	6.5	3.3
								87.5		77.5	7.5	3.8

Deep

Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		Y
							G	H	G	H	
ZPR40D	40	43	29	42.5	53.3	71.1	25	97	15	87	17

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

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

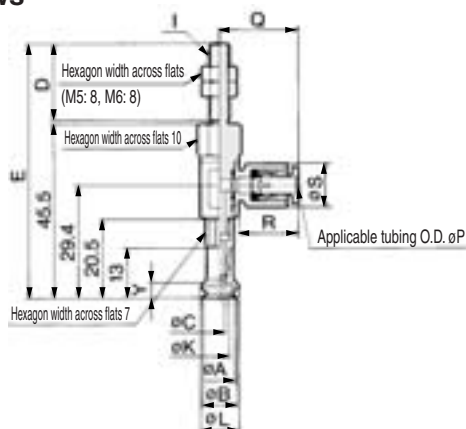
Related
Equipment

Series ZPR

Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Size/ø6, ø8

Bellows



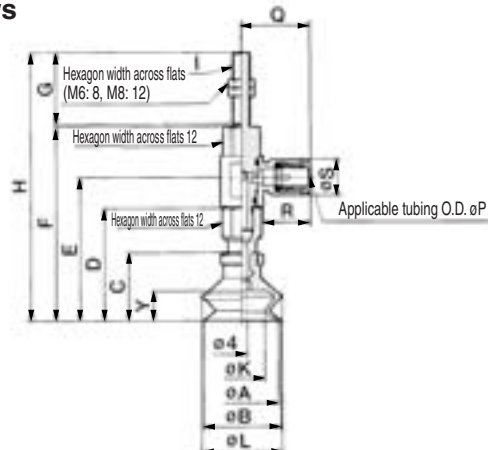
Model	A	B	C	I: M5 x 0.8		I: M6 x 1		K	L	Y
				D	E	D	E			
ZPR06B	6	7	2.5	20	66.5	25	71.5	3.3	9	4
ZPR08B	8	9						4.7	10	

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Size/ø20, ø25, ø32

Bellows



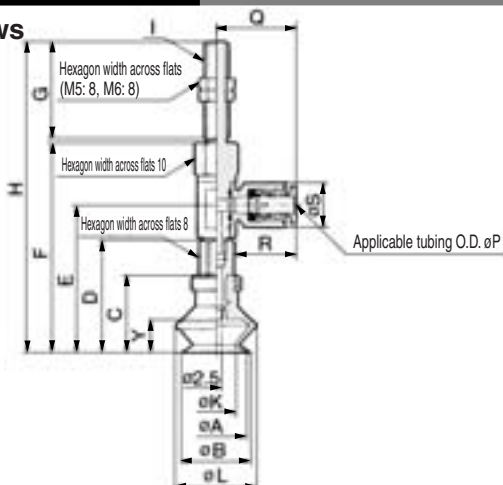
Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		K	L	Y
							G	H	G	H			
ZPR20B	20	22	23.5	38.5	49.3	67.1		93		83	12	25	10.5
ZPR25B	25	27	24	39	49.8	67.6	25	93.5	15	83.5	16	28	10.5
ZPR32B	32	34	29	44	54.8	72.6		98.5		88.5	19	37	14

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	23.3	15.8	10.4
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Size/ø10, ø13, ø16

Bellows



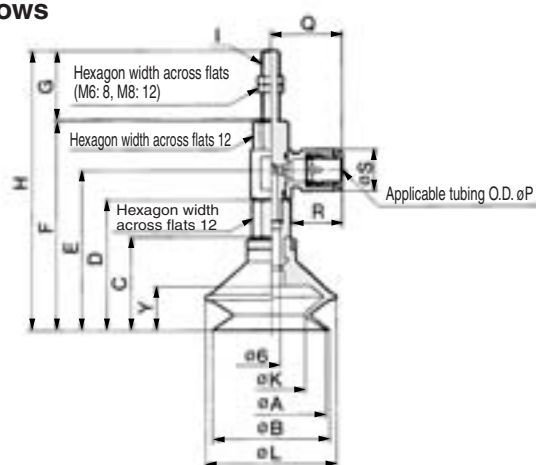
Model	A	B	C	D	E	F	I: M5 x 0.8		I: M6 x 1		K	L	Y
							G	H	G	H			
ZPR10B	10	12	16	25	33.9	50		71		76	6	14	5.5
ZPR13B	13	15	18.5	27.5	36.4	52.5	20	73.5	25	78.5	9	19	7.5
ZPR16B	16	18	20	29	37.9	54		75		80	10	21	8.5

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Size/ø40, ø50

Bellows



Model	A	B	C	D	E	F	I: M6 x 1		I: M8 x 1		K	L	Y
							G	H	G	H			
ZPR40B	40	43	34	47.5	58.3	76.1		102		92	24	48	16
ZPR50B	50	53	38	51.5	62.3	80.1	25	106	15	96	32	57	19

Applicable Tubing

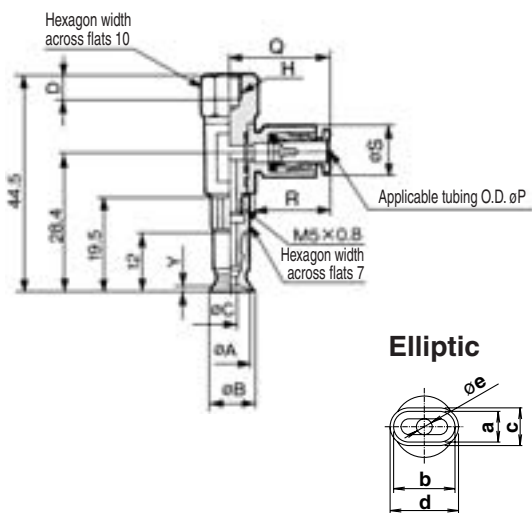
Applicable tubing O.D.	P	Q	R	S
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Female thread

**Size/Flat ø2, ø4, ø6, ø8/Thin flat/Thin flat with ribs ø10, ø13, ø16/
Elliptic 2004, 3507, 4010**

Size/ø10, ø13, ø16

Flat/Thin flat/Thin flat with ribs



Flat

Model	A	B	C	H: M4 x 0.7	H: M5 x 0.8	Y
				D	D	
ZPR02U	2	2.6	1.2	4	5	0.5
ZPR04U	4	4.8	1.6			0.8
ZPR06U	6	7	2.5			
ZPR08U	8	9	2.5			1

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Elliptic

Model	a	b	c	d	e	Y
ZPR2004U	2	4	2.6	4.6	1.2	0.3
ZPR3507U	3.5	7	4.3	7.8	1.8	0.5
ZPR4010U	4	10	5	11	2	0.8

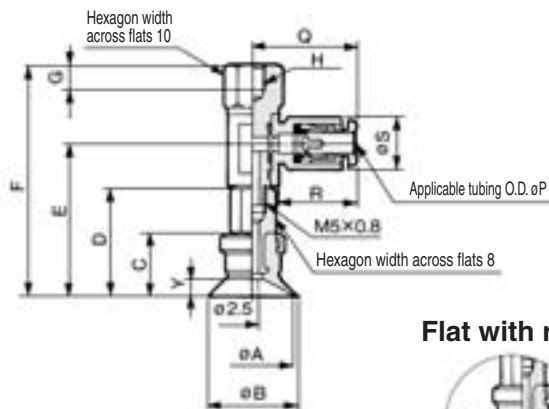
* Dimensions of D are the same.

Thin Flat/Thin Flat with Ribs

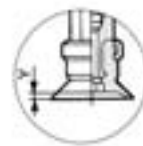
Model	A	B	C	Y
ZPR10UT	10	11	2.5	1
ZPR13UT	13	14		1.5
ZPR16UT	16	17		0.8
ZPR10CT	10	11		1
ZPR13CT	13	14		
ZPR16CT	16	17		

* Dimensions of D are the same.

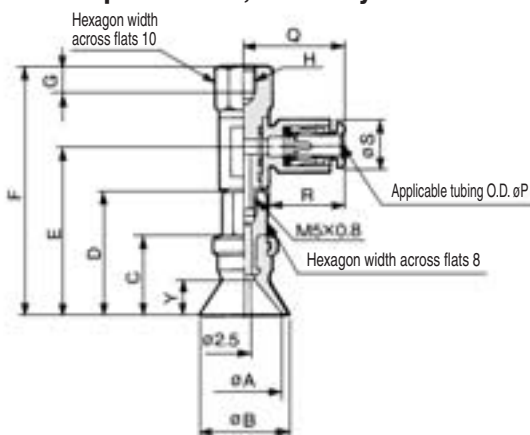
Flat



Flat with ribs



Deep: ZPR10D, 16D only



Flat/Flat with Ribs

Model	A	B	C	D	E	F	H: M5 x 0.8	H: M6 x 1	Y	
							G	G	Flat	Flat with rib
ZPR10 ^{UC}	10	12	12	21	29.9	46	5	6	3	1.7
ZPR13 ^{UC}	13	15								1.8
ZPR16 ^{UC}	16	18	12.5	21.5	30.4	46.5			3.5	1.2

Deep

Model	A	B	C	D	E	F	H: M5 x 0.8	H: M6 x 1	Y
							G	G	
ZPR10D	10	12	15	24	32.9	49	5	6	6
ZPR16D	16	18	16	25	33.9	50			7

Applicable Tubing

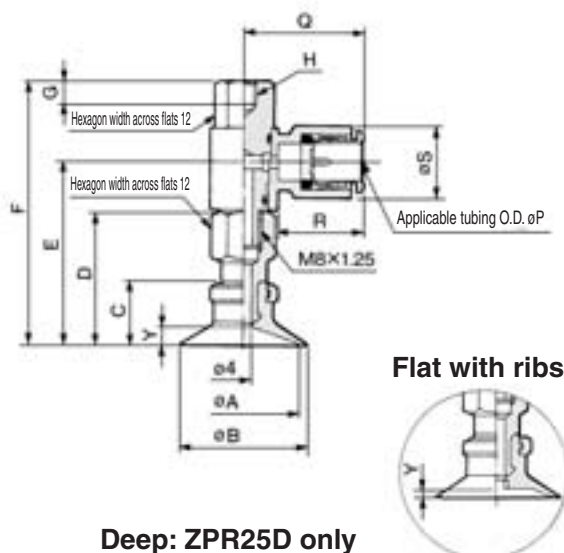
Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Female thread

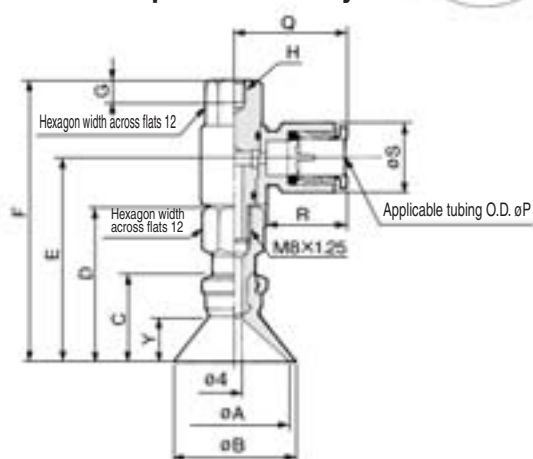
Size/ø20, ø25, ø32

Flat



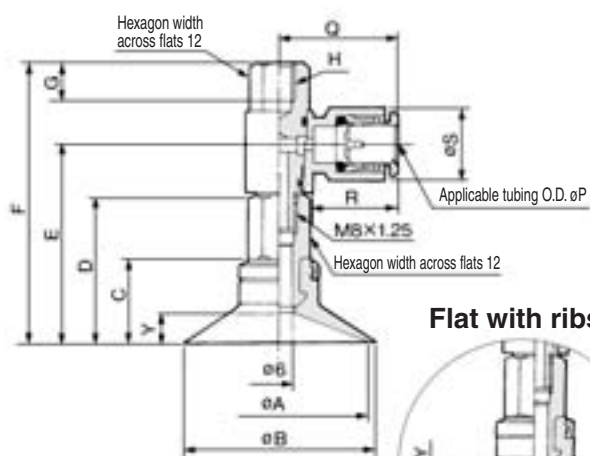
Flat with ribs

Deep: ZPR25D only

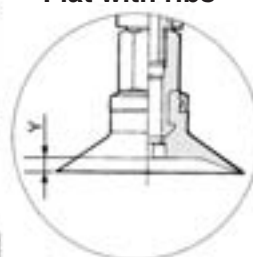


Size/ø40, ø50

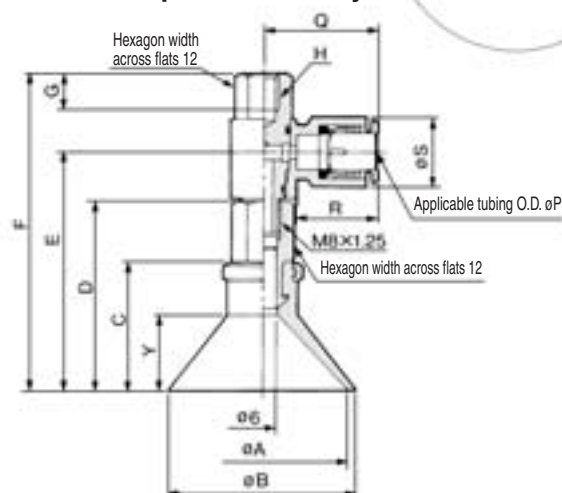
Flat



Flat with ribs



Deep: ZPR40D only



Flat/Flat with Ribs

Model	A	B	C	D	E	F	H: M5 x 0.8	H: M6 x 1	H: M8 x 1.25	Y
							G	G	G	Flat Flat with ribs
ZPR20 ^U _C	20	23	14	29	39.8	57.6	5	6	8	4 1.7
ZPR25 ^U _C	25	28	14	29	39.8	57.6	5	6	8	4 1.8
ZPR32 ^U _C	32	35	14.5	29.5	40.3	58.1	5	6	8	4.5 2.3

Deep

Model	A	B	C	D	E	F	H: M5 x 0.8	H: M6 x 1	H: M8 x 1.25	Y
							G	G	G	
ZPR25D	25	28	20	35	45.8	63.6	5	6	8	10

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	23.3	15.8	10.4
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Flat/Flat with Ribs

Model	A	B	C	D	E	F	H: M6 x 1	H: M8 x 1.25	Y
							G	G	Flat Flat with ribs
ZPR40 ^U _C	40	43	18.5	32	42.8	60.6	6	8	6.5 3.3
ZPR50 ^U _C	50	53	19.5	33	43.8	61.6	6	8	7.5 3.8

Deep

Model	A	B	C	D	E	F	H: M6 x 1	H: M8 x 1.25	Y
							G	G	
ZPR40D	40	43	29	42.5	53.3	71.1	6	8	17

Applicable Tubing

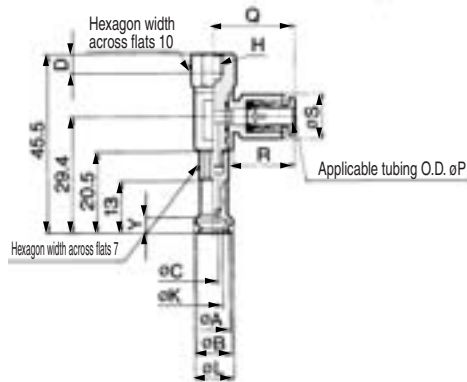
Applicable tubing O.D.	P	Q	R	S
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Vacuum Pad/ Lateral Vacuum Entry with One-touch Fitting Without Buffer **Series ZPR**

Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Female thread

Size/ø6, ø8

Bellows



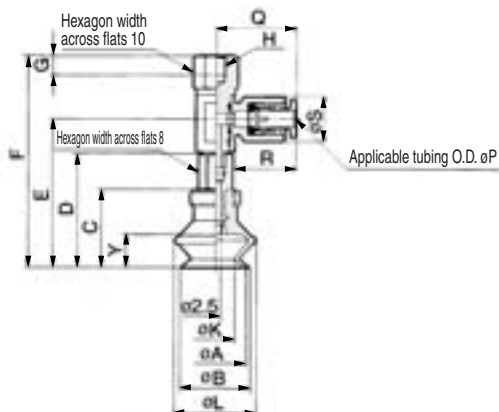
Model	A	B	C	H: M4 x 0.7 D	H: M5 x 0.8 D	K	L	Y
ZPR06B	6	7	2.5	4	5	3.3	9	4
ZPR08B	8	9				4.7	10	

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Size/ø10, ø13, ø16

Bellows



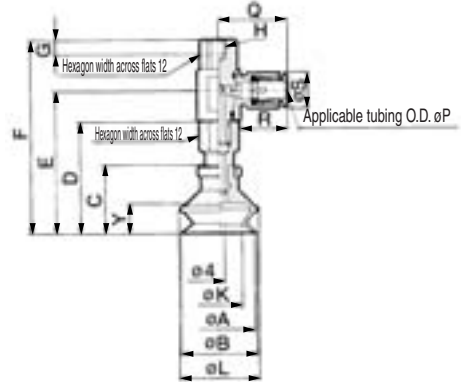
Model	A	B	C	D	E	F	H: M5 x 0.8 G	H: M6 x 1 G	K	L	Y
ZPR10B	10	12	16	25	33.9	50	5	6	6	14	5.5
ZPR13B	13	15	18.5	27.5	36.4	52.5		9	9	19	7.5
ZPR16B	16	18	20	29	37.9	54		10	10	21	8.5

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	20.6	15.6	10.4
ø6	6	21.6	16.6	12.8

Size/ø20, ø25, ø32

Bellows



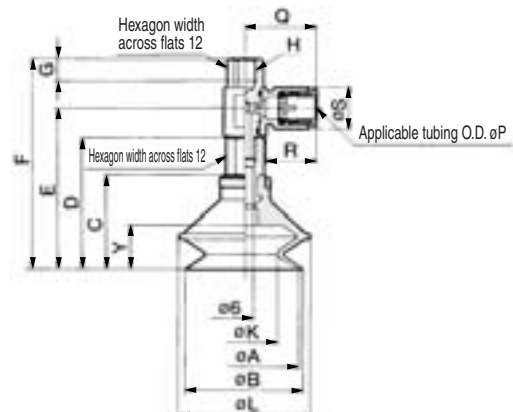
Model	A	B	C	D	E	F	H: M5 x 0.8 G	H: M6 x 1 G	H: M8 x 1.25 G	K	L	Y
ZPR20B	20	22	23.5	38.5	49.3	67.1	5	6	8	12	25	10.5
ZPR25B	25	27	24	39	49.8	67.6				16	28	10.5
ZPR32B	32	34	29	44	54.8	72.6				19	37	14

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø4	4	23.3	15.8	10.4
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

Size/ø40, ø50

Bellows



Model	A	B	C	D	E	F	H: M6 x 1 G	H: M8 x 1.25 G	K	L	Y
ZPR40B	40	43	34	47.5	58.3	76.1	6	8	24	48	16
ZPR50B	50	53	38	51.5	62.3	80.1			32	57	19

Applicable Tubing

Applicable tubing O.D.	P	Q	R	S
ø6	6	24.3	16.8	12.8
ø8	8	26.2	18.7	15.2

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



Vacuum Pad/ Lateral Vacuum Entry with One-touch Fitting With Buffer

Series ZPR

RoHS



Specifications

Vacuum entry	Direction		Lateral
	Connection		One-touch fitting
Applicable tube dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8		ø4, ø6 tube
	ø10 to ø16		ø4, ø6 tube
	ø20 to ø32		ø4, ø6, ø8 tube
	ø40 to ø50		ø6, ø8 tube
Mounting	Thread dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8	M8 x 1 Male thread
		ø10 to ø16	M10 x 1 Male thread
		ø20 to ø32	M10 x 1 Male thread
		ø40 to ø50	M14 x 1 Male thread

Buffer Specifications

Dia. (mm)		ø2 to ø8	ø10 to ø32	ø40, ø50
Stroke (mm)		6, 10, 15, 25	10, 20, 30, 40, 50	10, 20, 30, 50
Spring Reactive Force (N)	0 stroke	0.8	1.0	2.0
	Full stroke	1.2	3.0	5.0
Non-rotating specification		Rotating (J)/Non-rotating (K)		

* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs and Elliptic.

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad dia. (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluororubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Mass

(g)

Stroke (mm)	Pad form	Flat/Flat with ribs			Deep			Bellows		
	Vacuum entry port	04	06	08	04	06	08	04	06	08
6	Model									
	2004, 3507, 4010 ZPR02 to 08 Thin section flat series (10 to 16)	38	39	—	—	—	—	38	39	—
10	ZPR 10 to 16	39	40	—	39	40	—	40	41	—
10	ZPR 20 25	54	55	56	55	56	57	57	58	59
	ZPR 32	56	57	58	—	—	—	61	62	63
10	ZPR 40	—	126	127	—	128	129	—	138	139
	ZPR 50	—	132	133	—	—	—	—	145	146

Mass by Stroke

(g)

Stroke (mm)	10	15	20	25	30	40	50
Model							
ZPR02 to 08	+7	+8	—	+9	—	—	—
ZPR10 to 25	—	—	+12	—	+14	+26	+28
ZPR40, 50	—	—	—6	—	—2	—	+30

How to Order

Series ZPR With buffer

ZPR 16 U GS K 20 - 06 - A10

Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Mounting thread/Male thread
(Refer to "Table (3)" for applications.)

Vacuum entry port
(Refer to "Table (3)" for applications.)

Buffer stroke
(Refer to "Table (2)" for applications.)

Buffer type

J	Rotating
K	Non-rotating

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Pad type
(Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Table (1) Pad Diameter/Pad Type

Dia. (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Type															
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	●	●	●	●	●	●	●	—
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—

Table (2) Pad Diameter/Stroke

Diameter (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	Thin flat/Thin flat with ribs	10	13	16	20	25	32	40	50
Stroke (mm)								10 13 16								
6 mm	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
10 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 mm	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—
20 mm	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●
25 mm	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—
30 mm	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●
40 mm	—	—	—	—	—	—	—	—	—	●	●	●	●	●	—	—
50 mm	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●

Table (3) Vacuum Entry/Mounting Thread Diameter

	Symbol	Thread dia./Port size	ø2 to ø8 2 x 4, 3.5 x 7, 4 x 10 ø10 to ø16 (Thin section series)	ø10 to ø16	ø20 to ø32	ø40, ø50
Vacuum entry	04	ø4 tube	●	●	●	—
	06	ø6 tube	●	●	●	●
	08	ø8 tube	—	—	●	●
	A8	M8 x 1	●	—	—	—
Mounting	A10	M10 x 1	—	●	●	—
	A14	M14 x 1	—	—	—	●

Tightening Torque

(N·m)

Mounting thread diameter	Torque
M8 x 1	2.0 ±0.5
M10 x 1	3.0 ±0.5
M14 x 1	7.0 ±0.5

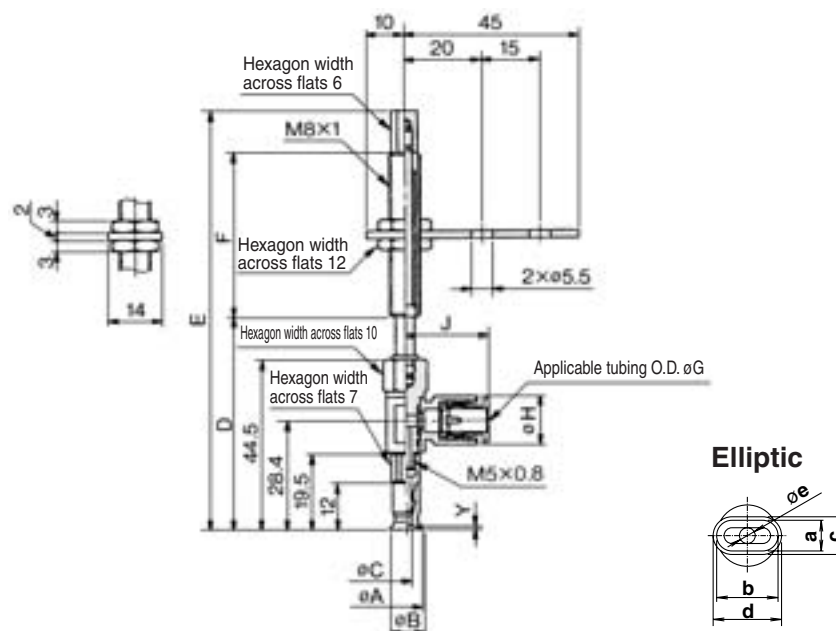
ZA
ZX
ZR
ZM
ZMA
ZQ
ZH
ZU
ZL
ZY□
ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP

Related Equipment

Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/ø2, ø4, ø6, ø8, Thin flat/Thin flat with ribs/ø10, ø13, ø16, Elliptic/2004, 3507, 4010



Flat

Model	A	B	C	Y
ZPR02U□□□□□-0□-A8	2	2.6	1.2	0.5
ZPR04U□□□□□-0□-A8	4	4.8	1.6	0.8
ZPR06U□□□□□-0□-A8	6	7	2.5	1
ZPR08U□□□□□-0□-A8	8	9		

Dimensions by Stroke

Model	D	E	F	G: 4		G: 6	
				H	J	H	J
ZPR□□□□□ 6-0□-A8	52.5	78.5	15	10.4	20.6	12.8	21.6
ZPR□□□□□ 10-0□-A8	55.5	109.5	43				
ZPR□□□□□ 15-0□-A8	60.5	114.5					
ZPR□□□□□ 25-0□-A8	70.5	124.5					

Elliptic

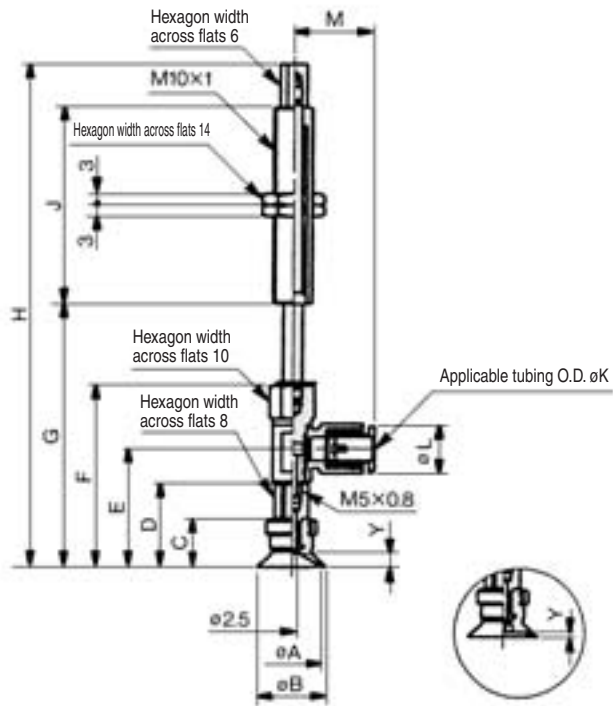
Model	a	b	c	d	e	Y
ZPR2004U	2	4	2.6	4.6	1.2	0.3
ZPR3507U	3.5	7	4.3	7.8	1.8	0.5
ZPR4010U	4	10	5	11	2	0.8

Thin Flat/Thin Flat with Ribs

Model	A	B	C	Y
ZPR10UT	10	11	2.5	1
ZPR13UT	13	14		1.5
ZPR16UT	16	17		0.8
ZPR10CT	10	11		1
ZPR13CT	13	14		
ZPR16CT	16	17		

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/Flat with ribs/ø10, ø13, ø16



Flat with ribs

ø10, ø13, ø16

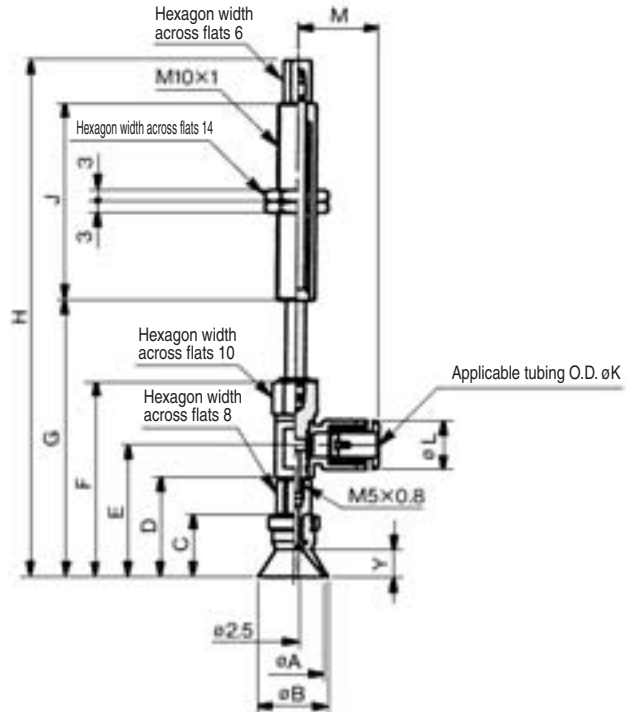
Flat/Flat with Ribs

Model	A	B	C	D	E	F	Y	
							Flat	Flat with ribs
ZPR10 ^U _C □□□□□-0□-A10	10	12	12	21	29.9	46	3	1.7
ZPR13 ^U _C □□□□□-0□-A10	13	15	12	21	29.9	46	3	1.8
ZPR16 ^U _C □□□□□-0□-A10	16	18	12.5	21.5	30.4	46.5	3.5	1.2

Dimensions by Stroke

Model	ø10, ø13		ø16		J
	G	H	G	H	
ZPR□□□ _C □□□□10-0□-A10	57	91	57.5	91.5	23
ZPR□□□ _C □□□□20-0□-A10	67	129	67.5	129.5	51
ZPR□□□ _C □□□□30-0□-A10	77	139	77.5	139.5	
ZPR□□□ _C □□□□40-0□-A10	87	175	87.5	175.5	77
ZPR□□□ _C □□□□50-0□-A10	97	185	97.5	185.5	

Deep/ø10, ø16



ø10, ø16

Deep

Model	A	B	C	D	E	F	Y
ZPR10D□□□□□-0□-A10	10	12	15	24	32.9	49	6
ZPR16D□□□□□-0□-A10	16	18	16	25	33.9	50	7

Dimensions by Stroke

Model	ø10		ø16		J
	G	H	G	H	
ZPR□□□D□□□□10-0□-A10	60	83	61	84	23
ZPR□□□D□□□□20-0□-A10	70	132	71	133	51
ZPR□□□D□□□□30-0□-A10	80	142	81	143	
ZPR□□□D□□□□40-0□-A10	90	178	91	179	77
ZPR□□□D□□□□50-0□-A10	100	188	101	189	

One-touch Fitting

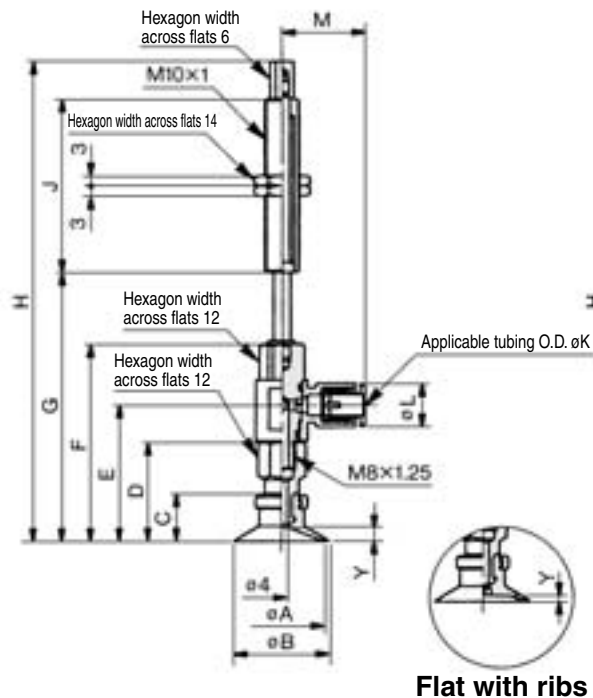
Model	K	L	M
ZPR□□□□□□□□-04-A10	4	10.4	20.6
ZPR□□□□□□□□-06-A10	6	12.8	21.6

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

Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/Flat with ribs/ø20, ø25, ø32



ø20, ø25, ø32

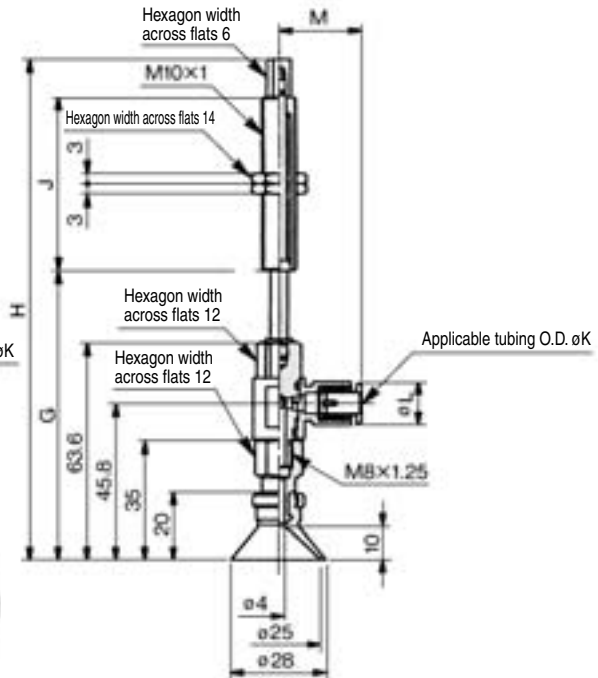
Flat/Flat with Ribs

Model	A	B	C	D	E	F	Y	
							Flat	Flat with ribs
ZPR20 ^U _C □□□□□-0□-A10	20	23	14	29	39.8	57.6	4	1.7
ZPR25 ^U _C □□□□□-0□-A10	25	28						1.8
ZPR32 ^U _C □□□□□-0□-A10	32	35	14.5	29.5	40.3	58.1	4.5	2.3

Dimensions by Stroke

Model	ø20, ø25		ø32		J
	G	H	G	H	
ZPR□□□ ^U _C □□□□10-0□-A10	68.6	102.6	69.1	103.1	23
ZPR□□□ ^U _C □□□□20-0□-A10	78.6	140.6	79.1	141.1	51
ZPR□□□ ^U _C □□□□30-0□-A10	88.6	150.6	89.1	151.1	
ZPR□□□ ^U _C □□□□40-0□-A10	98.6	186.6	99.1	187.1	77
ZPR□□□ ^U _C □□□□50-0□-A10	108.6	196.6	109.6	197.1	

Deep/ø25



ø25

Deep

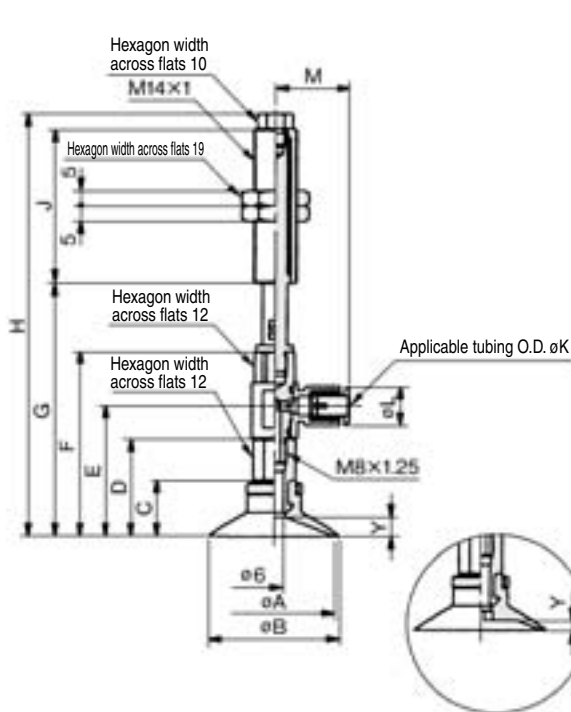
Model	G	H	J
ZPR25D□□□□10-0□-A10	74.6	108.6	23
ZPR25D□□□□20-0□-A10	84.6	146.6	51
ZPR25D□□□□30-0□-A10	94.6	156.6	
ZPR25D□□□□40-0□-A10	104.6	192.6	77
ZPR25D□□□□50-0□-A10	114.6	202.6	

One-touch Fitting

Model	K	L	M
ZPR□□□□□□□□-04-A10	4	10.4	23.3
ZPR□□□□□□□□-06-A10	6	12.8	24.3
ZPR□□□□□□□□-08-A10	8	15.2	26.2

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/Flat with ribs/ø40, ø50



Flat with ribs

ø40, ø50

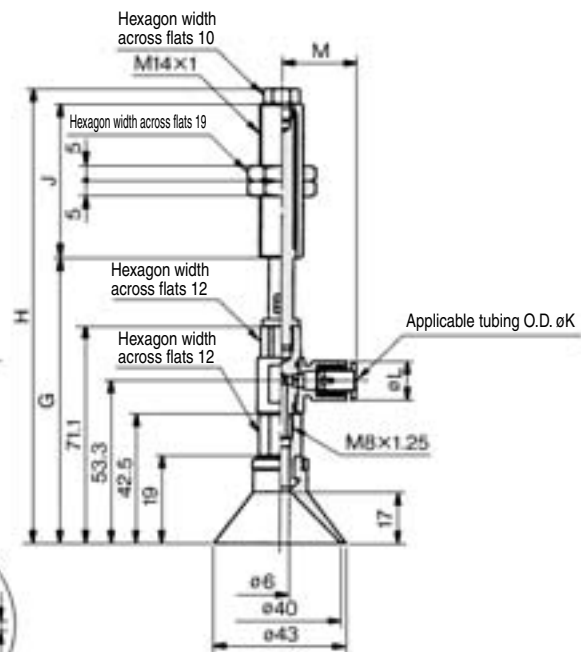
Flat/Flat with Ribs

Model	A	B	C	D	E	F	Y	
							Flat	Flat with ribs
ZPR40 ^U _C □□□□□-0□-A14	40	43	18.5	32	42.8	60.6	6.5	3.3
ZPR50 ^U _C □□□□□-0□-A14	50	53	19.5	33	43.8	61.6	7.5	3.8

Dimensions by Stroke

Model	ø40		ø50		J
	G	H	G	H	
ZPR□□ ^U _C □□□□10-0□-A14	72.6	140.6	73.6	141.6	50
ZPR□□ ^U _C □□□□20-0□-A14	82.6	137.6	83.6	138.6	
ZPR□□ ^U _C □□□□30-0□-A14	92.6	147.6	93.6	148.6	
ZPR□□ ^U _C □□□□50-0□-A14	112.6	192.6	113.6	193.6	75

Deep/ø40



ø40

Deep

Model	G	H	J
ZPR40D□□□10-0□-A14	83.1	151.1	50
ZPR40D□□□20-0□-A14	93.1	148.1	
ZPR40D□□□30-0□-A14	103.1	158.1	
ZPR40D□□□50-0□-A14	123.1	203.1	75

One-touch Fitting

Model	K	L	M
ZPR□□□□□□□□-06-A14	6	12.8	24.3
ZPR□□□□□□□□-08-A14	8	15.2	26.2

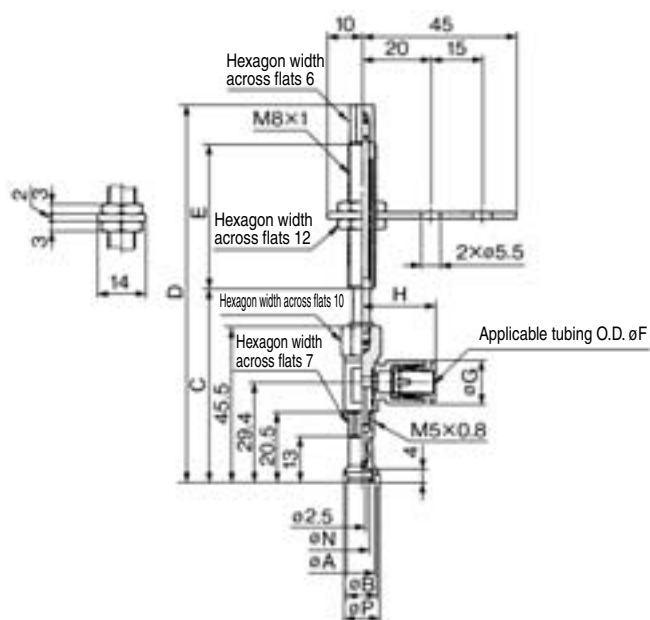
ZA
ZX
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ZM
ZMA
ZQ
ZH
ZU
ZL
ZY□
ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP

Related
Equipment

Series ZPR

Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Bellows/ø6, ø8



Ø6, Ø8

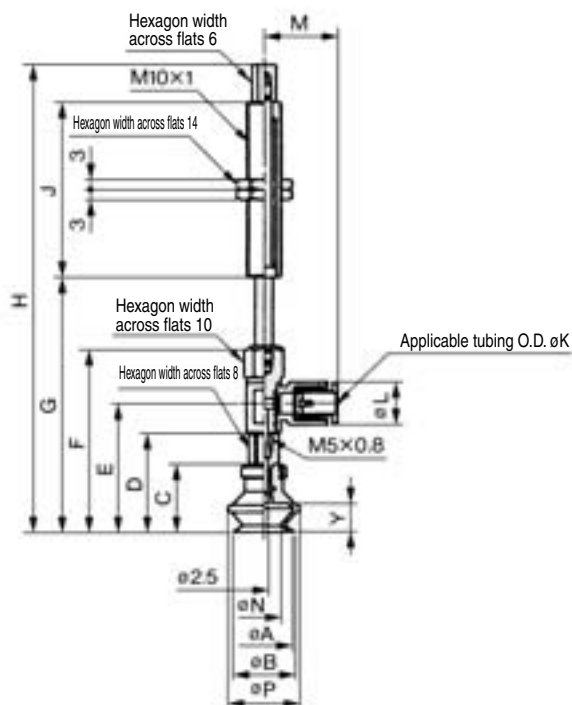
Bellows

Model	A	B	N	P
ZPR06B -0 -A8	6	7	3.3	9
ZPR08B  -0  -A8	8	9	4.7	10

Dimensions by Stroke

Model	C	D	E	F: 4		F: 6	
				G	H	G	H
ZPR□□B□□□ 6-0□-A8	53.5	79.5	15	10.4	20.6	12.8	21.6
ZPR□□B□□□ 10-0□-A8	56.5	110.5	43				
ZPR□□B□□□ 15-0□-A8	61.5	115.5					
ZPR□□B□□□ 25-0□-A8	71.5	125.5					

Bellows/ø10, ø13, ø16



Ø10, Ø13, Ø16

Bellows

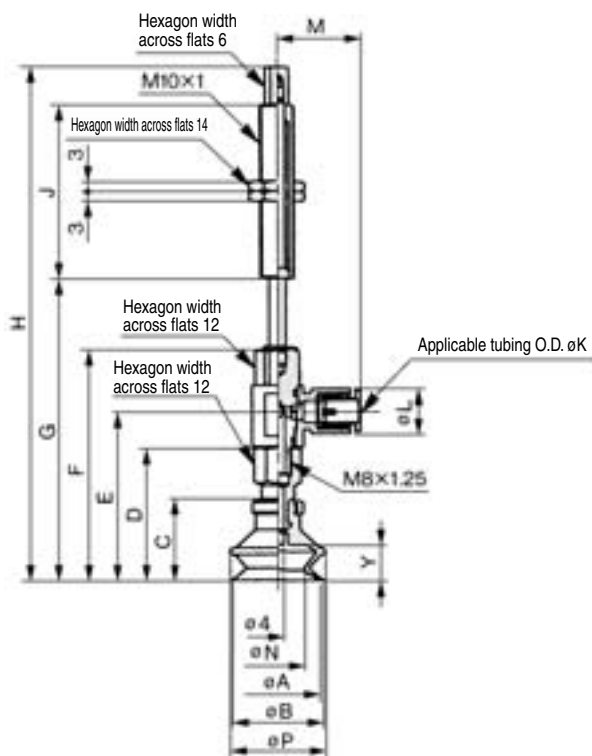
Model	A	B	C	D	E	F	N	P	Y
ZPR10B□□□□□-0□-A10	10	12	16	25	33.9	50	6	14	5.5
ZPR13B□□□□□-0□-A10	13	15	18.5	27.5	36.4	52.5	9	19	7.5
ZPR16B□□□□□-0□-A10	16	18	20	29	37.9	54	10	21	8.5

Dimensions by Stroke

Model	ø10		ø13		ø16		J	K: 4		K: 6	
	G	H	G	H	G	H		L	M	L	M
ZPR□□B□□□10-0□-A10	61	95	63.5	97.5	65	99	23	10.4	20.6	12.8	21.6
ZPR□□B□□□20-0□-A10	71	133	73.5	135.5	75	137	51				
ZPR□□B□□□30-0□-A10	81	143	83.5	145.5	85	147					
ZPR□□B□□□40-0□-A10	91	179	93.5	181.5	95	183					
ZPR□□B□□□50-0□-A10	101	189	103.5	191.5	105	193	77				

Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Bellows/ø20, ø25, ø32



ø20, ø25, ø32

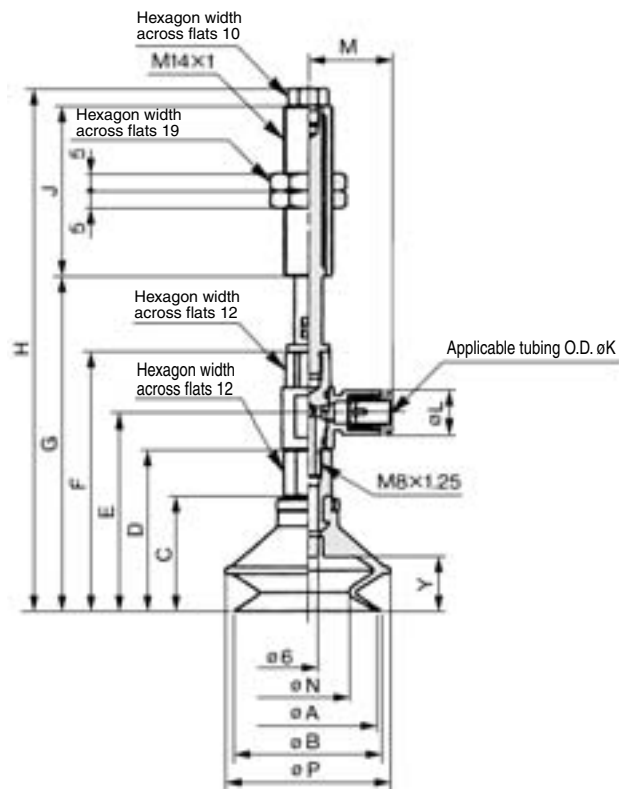
Bellows

Model	A	B	C	D	E	F	N	P	Y
ZPR20B□□□□□-0□-A10	20	22	23.5	38.5	49.3	67.1	12	25	10.5
ZPR25B□□□□□-0□-A10	25	27	24	39	49.8	67.6	16	28	
ZPR32B□□□□□-0□-A10	32	34	29	44	54.8	72.6	19	37	

Dimensions by Stroke

Model	ø20		ø25		ø32		J	K: 4		K: 6		K: 8	
	G	H	G	H	G	H		L	M	L	M	L	M
ZPR□□B□□□□10-0□-A10	78.1	112.1	78.6	112.6	83.6	117.6	23	10.4	23.3	12.8	24.3	15.2	26.2
ZPR□□B□□□□20-0□-A10	88.1	150.1	88.6	150.6	93.6	155.6	51						
ZPR□□B□□□□30-0□-A10	98.1	160.1	98.6	160.6	103.6	165.6	77						
ZPR□□B□□□□40-0□-A10	108.1	196.1	108.6	196.6	113.6	201.6							
ZPR□□B□□□□50-0□-A10	118.1	206.1	118.6	206.6	123.6	211.6							

Bellows/ø40, ø50



ø40, ø50

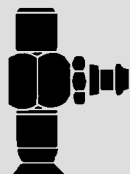
Bellows

Model	A	B	C	D	E	F	N	P	Y
ZPR40B□□□□□-0□-A14	40	43	34	47.5	58.3	76.1	24	48	16
ZPR50B□□□□□-0□-A14	50	53	38	51.5	62.3	80.1	32	57	19

Dimensions by Stroke

Model	ø40		ø50		J	K: 6		K: 8	
	G	H	G	H		L	M	L	M
ZPR□□B□□□10-0□-A14	88.1	156.1	92.1	160.1	50	12.8	24.3	15.2	26.2
ZPR□□B□□□20-0□-A14	98.1	153.1	102.1	157.1					
ZPR□□B□□□30-0□-A14	108.1	163.1	112.1	167.1					
ZPR□□B□□□50-0□-A14	128.1	208.1	132.1	212.1	75				

ZA
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ZU
ZL
ZY□
ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP
Related Equipment



Vacuum Pad/ Lateral Vacuum Entry with Barb Fitting Without Buffer

Series ZPY



Specifications

Vacuum entry	Direction		Lateral	
	Applicable tube dia.	Connection	Barb fitting	
		Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube	
		ø10 to ø16	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube	
		ø20 to ø32	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube	
Mounting	Thread dia.	Connection	Male thread	
		Elliptic (2 x 4, 3.5 x 7, 4 x 10) Thin section series (ø10 to ø16) ø2 to ø8	M5 x 0.8, M6 x 1	
		ø10 to ø16	M5 x 0.8, M6 x 1	
		ø20 to ø32	M6 x 1, M8 x 1	
		ø40 to ø50	M6 x 1, M8 x 1	
			Female thread	
			M4 x 0.7, M5 x 0.8	
			M5 x 0.8, M6 x 1	
			M5 x 0.8, M6 x 1, M8 x 1.25	
			M6 x 1, M8 x 1.25	

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad dia. (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluororubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Mass/Male Thread (Female thread)

(g)

Model	Flat			Flat with ribs			Deep			Bellows		
	M5	M6	M8	M5	M6	M8	M5	M6	M8	M5	M6	M8
ZPY02 to 08 2004 3507 4010 10 to 16 (Thin section series)	15 (11)	15	—	—	—	—	—	—	—	15 (11) except ø2, ø4	15 (11) except ø2, ø4	—
ZPY10	—	—	—	—	—	—	31 (27)	33 (26)	—	—	—	—
ZPY13	32 (25)	33 (25)	—	32 (25)	33 (25)	—	—	—	—	— (25)	33 (25)	33 —
ZPY16	—	—	—	—	—	—	32 (27)	38 (27)	—	—	—	—
ZPY20	—	—	—	—	—	—	—	—	—	—	—	—
ZPY25	— (30)	38 (30)	38 (29)	— (30)	38 (30)	38 (29)	— (30)	38 (30)	38 (28)	— (30)	38 (30)	38 (29)
ZPY32	—	—	—	—	—	—	—	—	—	—	—	—
ZPY40	—	43 (36)	47 (34)	—	42 (35)	46 (33)	—	44 (37)	48 (35)	—	43 (36)	47 (34)
ZPY50	—	44 (38)	49 (35)	—	46 (38)	50 (37)	—	—	—	—	44 (38)	49 (35)

* (): Figures for female thread connections.

How to Order

Series ZPY
Without buffer

ZPY 02 U N - N4 - A5

Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Pad type



(Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Mounting thread



(Refer to "Table (2)" for applications.)

Vacuum entry port



(Refer to "Table (2)" for applications.)

Table (2) Vacuum Entry/Mounting Thread Diameter

Connection	Symbol	Thread dia./Port size	ø2 to ø8 2 x 4 3.5 x 7 4 x 10 ø10 to ø16 (thin section series)	ø10 to ø16	ø20 to ø32	ø40 to ø50
Vacuum entry	Barb fitting	N4	ø4 Nylon tube	●	●	—
		N6	ø6 Nylon tube	●	●	●
		U4	ø4 Urethane tube	●	●	—
		U6	ø6 Urethane tube	●	●	●
Mounting	Male thread	A5	M5 x 0.8	●	—	—
		A6	M6 x 1	●	●	●
		A8	M8 x 1	—	●	●
	Female thread	B4	M4 x 0.7	●	—	—
		B5	M5 x 0.8	●	●	—
		B6	M6 x 1	—	●	●
		B8	M8 x 1.25	—	●	●

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Table (1) Pad Diameter/Pad Type

Dia. (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Type															
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	●	—	●	—	●	—	●	—
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

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SP

ZCUK

AMJ

AMV

AEP

HEP

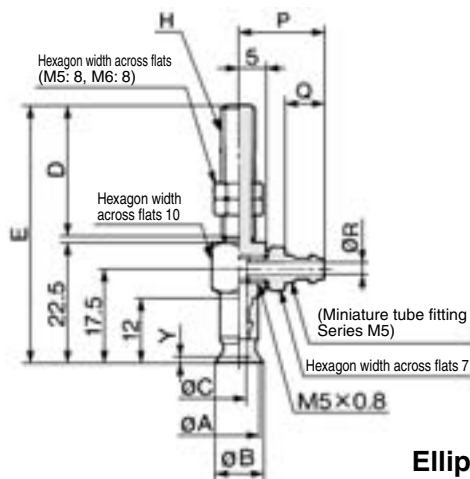
Related
Equipment

Series ZPY

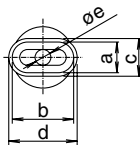
Connection	Barb Fitting	Pad Form	Flat/Flat with ribs/Deep/ Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread

Size/Flat ø2, ø4, ø6, ø8/Thin flat/Thin flat with ribs ø10, ø13, ø16/
Elliptic 2004, 3507, 4010

Flat/Thin flat/Thin flat with ribs



Elliptic



Flat

Model	A	B	C	H: M5 x 0.8		H: M6 x 1		Y
				D	E	D	E	
ZPY02U	2	2.6	1.2	20	44	25	49.5	0.5
ZPY04U	4	4.8	1.6					0.8
ZPY06U	6	7	2.5					1
ZPY08U	8	9	2.5					

Elliptic

Model	a	b	c	d	e	Y
ZPY2004U	2	4	2.6	4.6	1.2	0.3
ZPY3507U	3.5	7	4.3	7.8	1.8	0.5
ZPY4010U	4	10	5	11	2	0.8

Thin Flat/Thin Flat with Ribs

Model	A	B	C	Y
ZPY10UT	10	11	2.5	1
ZPY13UT	13	14		1.5
ZPY16UT	16	17		0.8
ZPY10CT	10	11		1
ZPY13CT	13	14		
ZPY16CT	16	17		

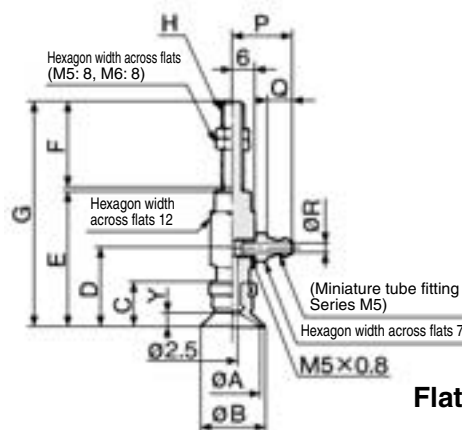
* Dimensions of D, E are the same.

Applicable Tubing

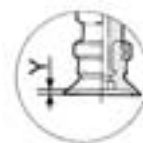
Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	13.5	5	1.8
N6 (Nylon tube ø6/4)	15.5	7	2.5
U4 (Soft tube ø4/2.5)	13.5	5	1.8
U6 (Soft tube ø6/4)	15.5	7	2.5

Size/ø10, ø13, ø16

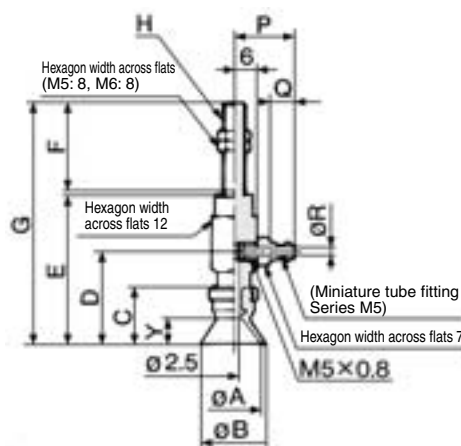
Flat



Flat with ribs



Deep: ZPY10D,16D only



Flat/Flat with Ribs

Model	A	B	C	D	E	H: M5 x 0.8		H: M6 x 1		Y	
						F	G	F	G	Flat	Flat with ribs
ZPY10U	10	12	12	22	38	20	59	25	64	3	1.7
ZPY13U	13	15									1.8
ZPY16U	16	18									1.2

Deep

Model	A	B	C	D	E	H: M5 x 0.8		H: M6 x 1		Y
						F	G	F	G	
ZPY10D	10	12	15	25	41	20	62	25	67	6
ZPY16D	16	18	16	26	42		63		68	7

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Soft tube ø4/2.5)	14.5	5	1.8
U6 (Soft tube ø6/4)	16.5	7	2.5

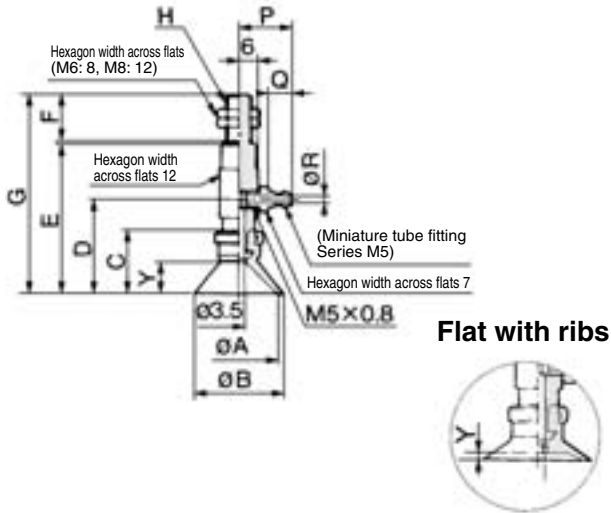
Vacuum Pad/ Lateral Vacuum Entry with Barb Fitting without Buffer **Series ZPY**

Connection	Barb Fitting	Pad Form	Flat/Flat with ribs/Deep/ Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread

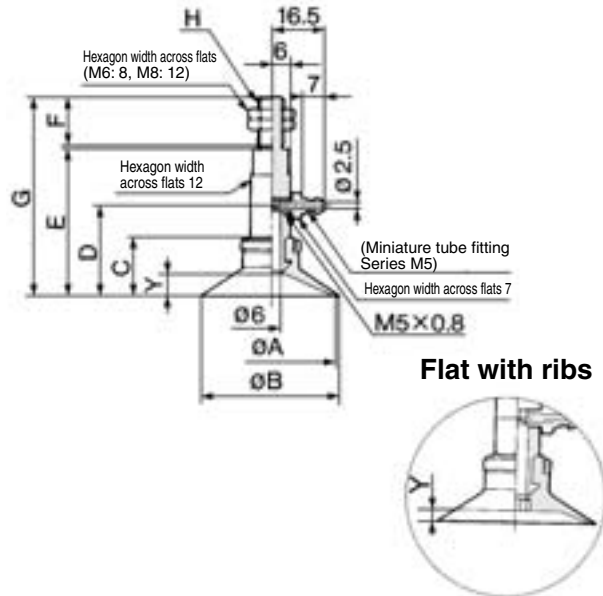
Size/ø20, ø25, ø32

Size/ø40, ø50

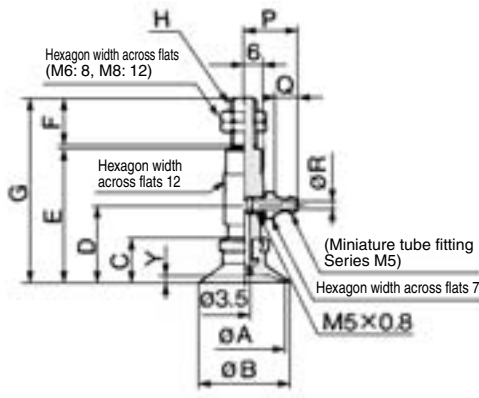
Flat



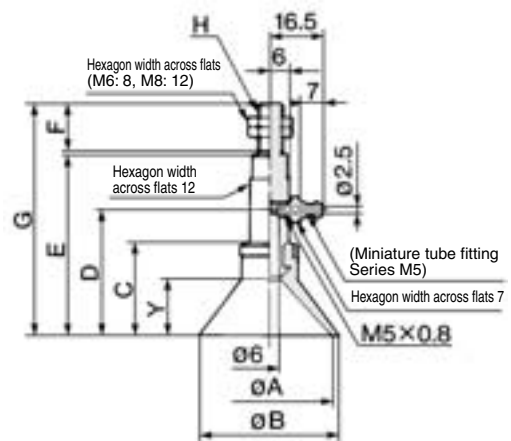
Flat



Deep: ZPY25D only



Deep: ZPY40D only



Flat/Flat with Ribs

Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		Y	
						F	G	F	G	Flat	Flat with ribs
ZPY20 ^U	20	23	14	24	42	25	68	15	58	4	1.7
ZPY25 ^U	25	28	14	24	42	25	68	15	58	4	1.8
ZPY32 ^U	32	35	14.5	24.5	42.5	25	68.5	15	58.5	4.5	2.3

Deep

Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		Y
						F	G	F	G	
ZPY25D	25	28	20	30	48	25	74	15	64	10

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Soft tube ø4/2.5)	14.5	5	1.8
U6 (Soft tube ø6/4)	16.5	7	2.5

Flat/Flat with Ribs

Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		Y	
						F	G	F	G	Flat	Flat with ribs
ZPY40 ^U	40	43	18.5	28.5	46.5	25	72.5	15	62.5	6.5	3.3
ZPY50 ^U	50	53	19.5	29.5	47.5	25	73.5	15	63.5	7.5	3.8

Deep

Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		Y
						F	G	F	G	
ZPY40D	40	43	29	39	57	25	83	15	73	17

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

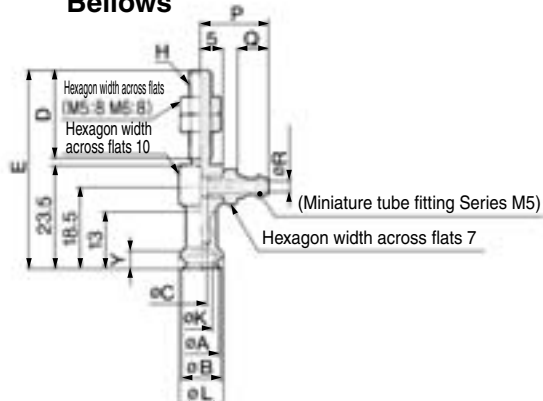
Related
Equipment

Series ZPY

Connection	Barb Fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Size/ø6, ø8

Bellows



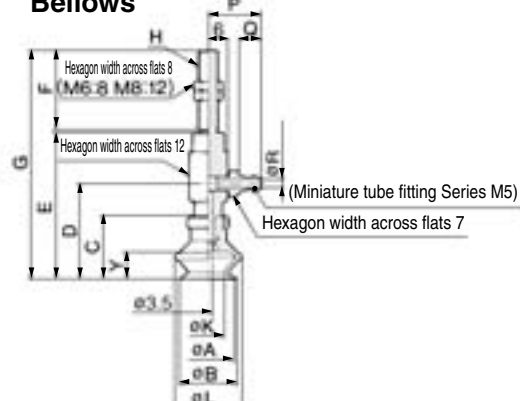
Model	A	B	C	H: M5 x 0.8		H: M6 x 1		K	L	Y
				D	E	D	E			
ZPY06B	6	7	2.5	20	45	25	50.5	3.3	9	4
ZPY08B	8	9						4.7	10	

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	13.5	5	1.8
N6 (Nylon tube ø6/4)	15.5	7	2.5
U4 (Urethane tube ø4/2.5)	13.5	5	1.8
U6 (Urethane tube ø6/4)	15.5	7	2.5

Size/ø20, ø25, ø32

Bellows



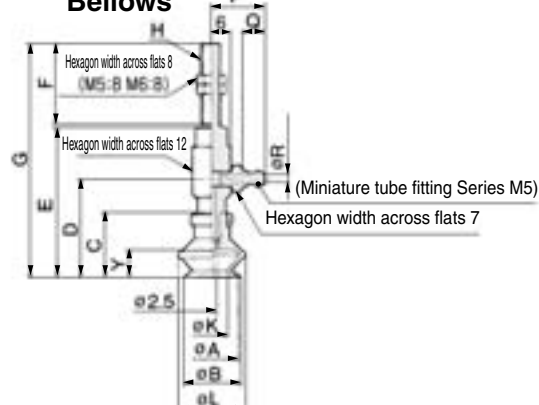
Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		K	L	Y
						F	G	F	G			
ZPY20B	20	22	23.5	33.5	51.5	25	79.5	15	69.5	12	25	10.5
ZPY25B	25	27	24	34	52		80		70	16	28	
ZPY32B	32	34	29	39	57		85		75	19	37	

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Urethane tube ø4/2.5)	14.5	5	1.8
U6 (Urethane tube ø6/4)	16.5	7	2.5

Size/ø10, ø13, ø16

Bellows



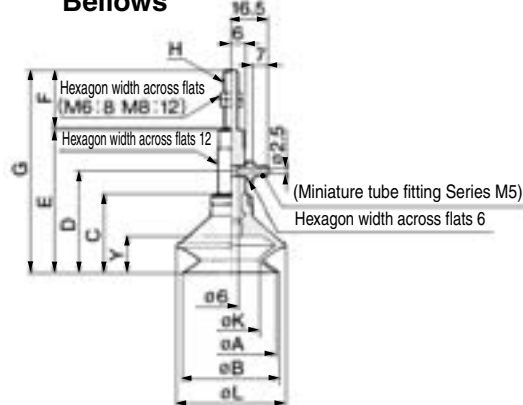
Model	A	B	C	D	E	H: M5 x 0.8		H: M6 x 1		K	L	Y
						F	G	F	G			
ZPY10B	10	12	16	26	42	20	63	25	68	6	14	5.5
ZPY13B	13	15	18.5	28.5	44.5		65.5		70.5	9	19	7.5
ZPY16B	16	18	20	30	46		67		72	10	21	8.5

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Urethane tube ø4/2.5)	14.5	5	1.8
U6 (Urethane tube ø6/4)	16.5	7	2.5

Size/ø40, ø50

Bellows



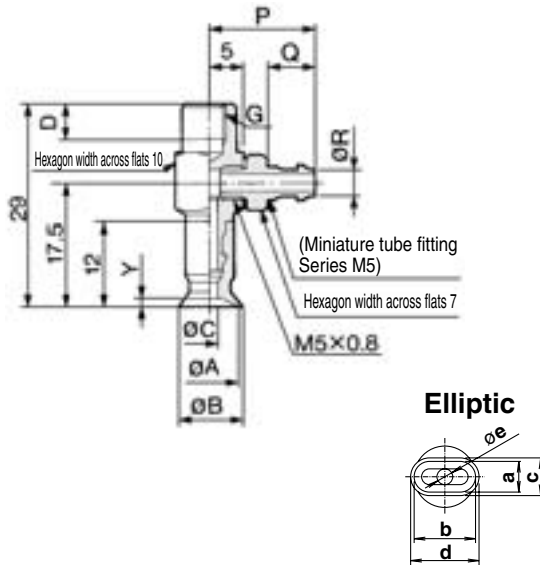
Model	A	B	C	D	E	H: M6 x 1		H: M8 x 1		K	L	Y
						F	G	F	G			
ZPY40B	40	43	34	44	62	25	88	15	78	24	48	16
ZPY50B	50	53	38	48	66		92		82	32	57	19

Vacuum Pad/ Lateral Vacuum Entry with Barb Fitting without Buffer **Series ZPY**

Connection	Barb fitting	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Female thread

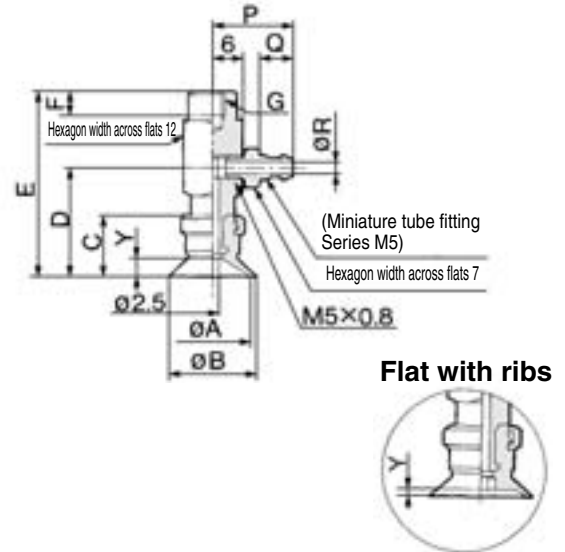
Size/Flat ø2, ø4, ø6, ø8/Thin flat/Thin flat with ribs ø10, ø13, ø16/
Elliptic 2004, 3507, 4010

Flat/Thin flat/Thin flat with ribs



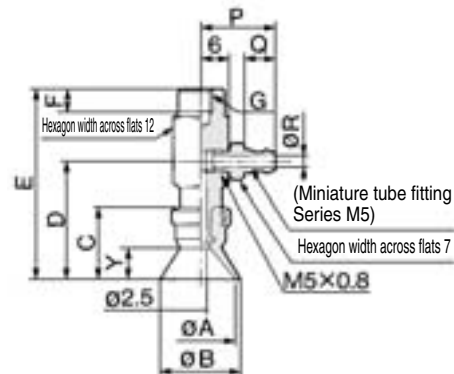
Size/ø10, ø13, ø16

Flat



Flat with ribs

Deep: ZPY10D, 16D only



Flat/Flat with Ribs

Model	A	B	C	G: M4 x 0.7		Y
				D	D	
ZPY02U	2	2.6	1.2	4	5	0.5
ZPY04U	4	4.8	1.6			0.8
ZPY06U	6	7	2.5			1
ZPY08U	8	9	2.5			1

Elliptic

Model	a	b	c	d	e	Y
ZPY2004U	2	4	2.6	4.6	1.2	0.3
ZPY3507U	3.5	7	4.3	7.8	1.8	0.5
ZPY4010U	4	10	5	11	2	0.8

Thin Flat /Thin Flat with Ribs

Model	A	B	C	Y
ZPY10UT	10	11	2.5	1
ZPY13UT	13	14		1.5
ZPY16UT	16	17		0.8
ZPY10CT	10	11		1
ZPY13CT	13	14		
ZPY16CT	16	17		

* Dimensions of D are the same.

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	13.5	5	1.8
N6 (Nylon tube ø6/4)	15.5	7	2.5
U4 (Soft tube ø4/2.5)	13.5	5	1.8
U6 (Soft tube ø6/4)	15.5	7	2.5

Flat/Flat with Ribs

Model	A	B	C	D	E	G: M5 x 0.8		G: M6 x 1		Y	
						F	F	F	F	Flat	Flat with ribs
ZPY10U	10	12	12	22	38	5	6	3	3.5	1.7	1.8
ZPY13U	13	15									
ZPY16U	16	18	12.5	22.5	38.5						

Deep

Model	A	B	C	D	E	G: M5 x 0.8		G: M6 x 1		Y
						F	F	F	F	
ZPY10D	10	12	15	25	41	5	6	6	7	6
ZPY16D	16	18	16	26	42					7

Applicable Tubing

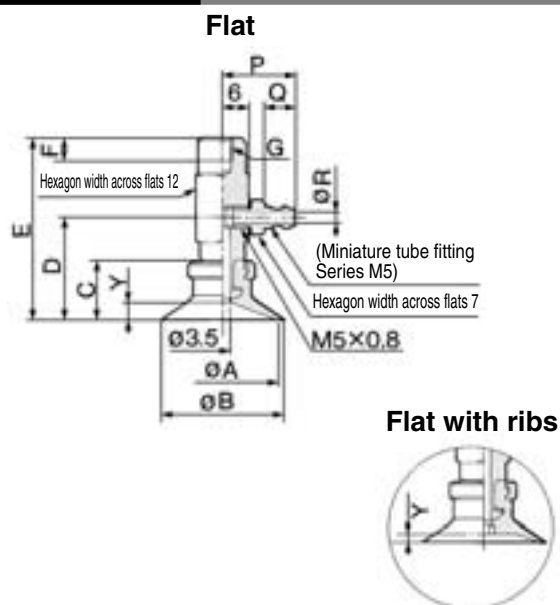
Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Soft tube ø4/2.5)	14.5	5	1.8
U6 (Soft tube ø6/4)	16.5	7	2.5

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

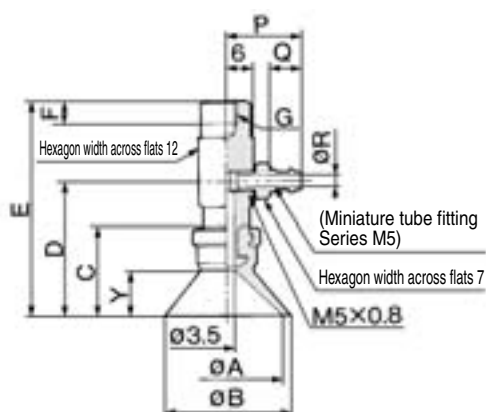
Series ZPY

Connection	Barb fitting	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Female thread

Size/ø20, ø25, ø32



Deep: ZPY25D only



Flat/Flat with ribs

Model	A	B	C	D	E	G: M5 x 0.8	G: M6 x 1	G: M8 x 1.25	Y	
						F	F	F	Flat	Flat with ribs
ZPY20 U	20	23								
ZPY25 U	25	28	14	24	42	5	6	8	4	1.7
ZPY32 U	32	35	14.5	24.5	42.5				4.5	2.3

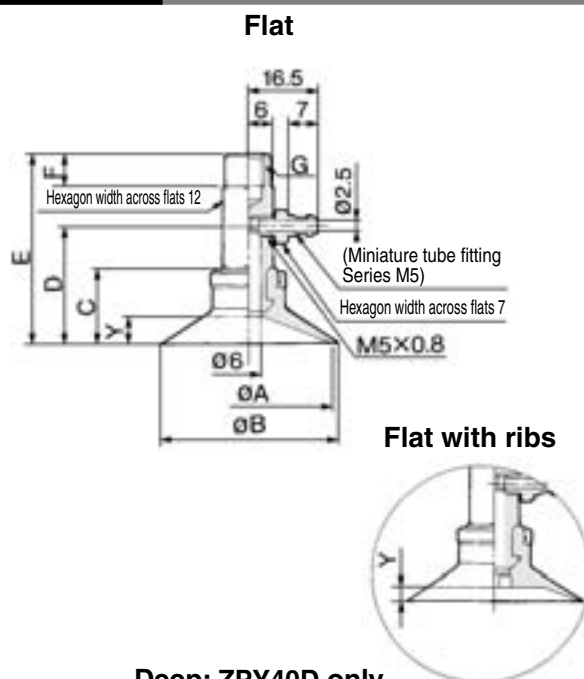
Deep

Model	A	B	C	D	E	G: M5 x 0.8	G: M6 x 1	G: M8 x 1.25	Y
						F	F	F	
ZPY25D	25	28	20	30	48	5	6	8	10

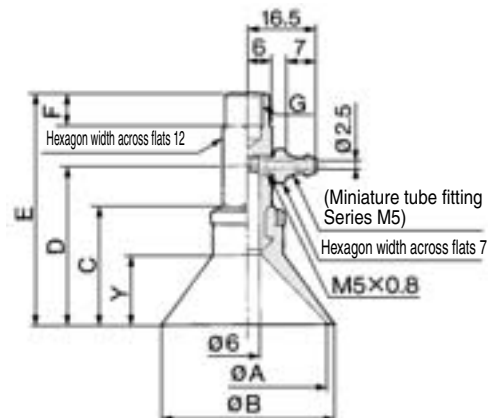
Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylontube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Soft tube ø4/2.5)	14.5	5	1.8
U6 (Soft tube ø6/4)	16.5	7	2.5

Size/ø40, ø50



Deep: ZPY40D only



Flat/Flat with ribs

Model	A	B	C	D	E	G: M6 x 1	G: M8 x 1.25	Y	
						F	F	Flat	Flat with ribs
ZPY40 U	40	43	18.5	28.5	46.5			6.5	3.3
ZPY50 U	50	53	19.5	29.5	47.5	6	8	7.5	3.8

Deep

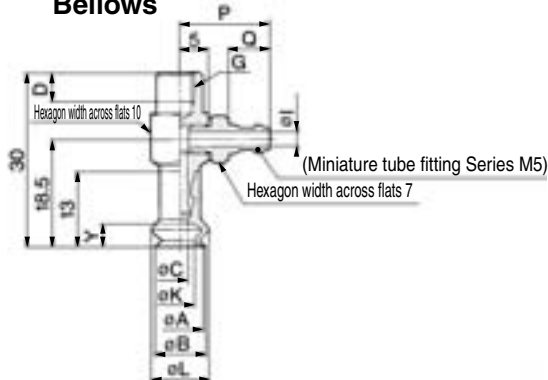
Model	A	B	C	D	E	G: M6 x 1	G: M8 x 1.25	Y
						F	F	
ZPY40D	40	43	29	39	57	6	8	17

Vacuum Pad/ Lateral Vacuum Entry with Barb Fitting without Buffer **Series ZPY**

Connection	Barb fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Female thread

Size/ø6, ø8

Bellows



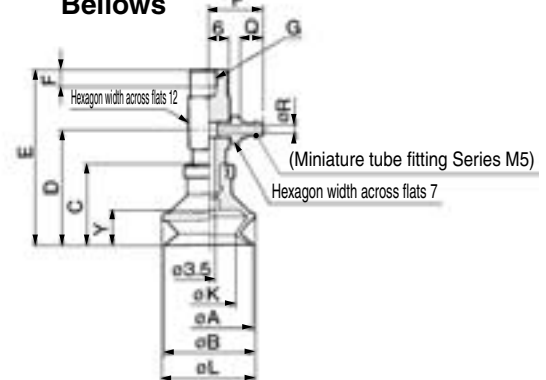
Model	A	B	C	G: M4 x 0.7 D	G: M5 x 0.8 D	K	L	Y
ZPY06B	6	7	2.5	4	5	3.3	9	4
ZPY08B	8	9				4.7	10	

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	13.5	5	1.8
N6 (Nylon tube ø6/4)	15.5	7	2.5
U4 (Urethane tube ø4/2.5)	13.5	5	1.8
U6 (Urethane tube ø6/4)	15.5	7	2.5

Size/ø20, ø25, ø32

Bellows



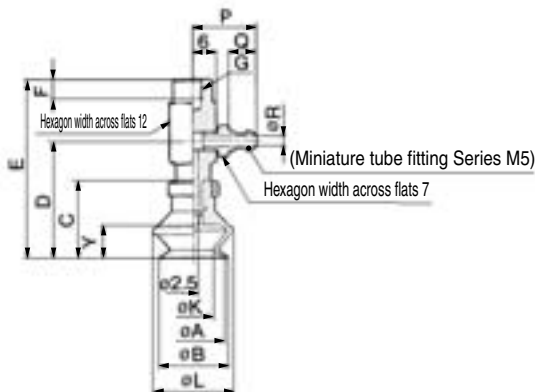
Model	A	B	C	D	E	G: M5 x 0.8 F	G: M6 x 1 F	G: M8 x 1.25 F	K	L	Y
ZPY20B	20	22	23.5	33.5	51.5				12	25	10.5
ZPY25B	25	27	24	34	52	5	6	8	16	28	10.5
ZPY32B	32	34	29	39	57				19	37	14

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Urethane tube ø4/2.5)	14.5	5	1.8
U6 (Urethane tube ø6/4)	16.5	7	2.5

Size/ø10, ø13, ø16

Bellows



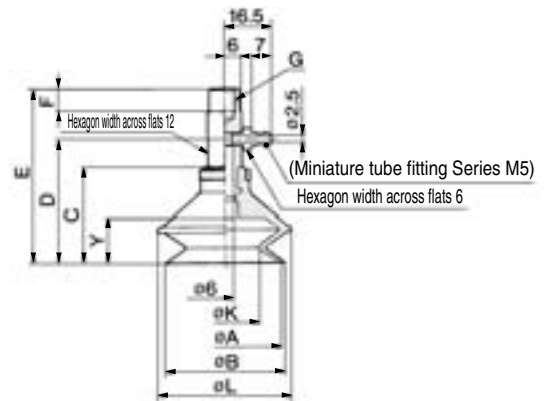
Model	A	B	C	D	E	G: M5 x 0.8 F	G: M6 x 1 F	K	L	Y
ZPY10B	10	12	16	26	42			6	14	5.5
ZPY13B	13	15	18.5	28.5	44.5	5	6	9	19	7.5
ZPY16B	16	18	20	30	46			10	21	8.5

Applicable Tubing

Applicable tube O.D.	P	Q	R
N4 (Nylon tube ø4/2.5)	14.5	5	1.8
N6 (Nylon tube ø6/4)	16.5	7	2.5
U4 (Urethane tube ø4/2.5)	14.5	5	1.8
U6 (Urethane tube ø6/4)	16.5	7	2.5

Size/ø40, ø50

Bellows



Model	A	B	C	D	E	G: M6 x 1 F	G: M8 x 1.25 F	K	L	Y
ZPY40B	40	43	34	44	62			24	48	16
ZPY50B	50	53	38	48	66	6	8	32	57	19

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



Vacuum Pad/ Lateral Vacuum Entry with Barb Fitting With Buffer

Series ZPY

Specifications

Vacuum entry	Direction		Lateral
	Connection		Barb fitting
	Applicable tubing dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) ø10 to ø16 (Thin section series) ø2 to ø8	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube
		ø10 to ø16	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube
		ø20 to ø32	ø4, ø6 Nylon tube, ø4, ø6 Urethane tube
		ø40 to ø50	ø6 Nylon tube, ø6 Urethane tube
Mounting	Thread dia.	Elliptic (2 x 4, 3.5 x 7, 4 x 10) ø10 to ø16 (Thin section series) ø2 to ø8	M8 x 1 Male thread
		ø10 to ø16	M10 x 1 Male thread
		ø20 to ø32	M10 x 1 Male thread
		ø40 to ø50	M14 x 1 Male thread

Buffer Specifications

Pad dia. (mm)		ø2 to ø8*	ø10 to ø32	ø40, ø50
Stroke (mm)		6, 10, 15, 25	10, 20, 30, 40, 50	10, 20, 30, 50
Spring Reactive Force (N)	0 stroke	0.8	1.0	2.0
	Full stroke	1.2	3.0	5.0
Non-rotating specification		Rotating (J)/Non-rotating (K)		

* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs and Elliptic.

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad dia. (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluororubber (Black with green mark) Conductive NBR (Black with one silver mark), Conductive silicon rubber (Black with two silver marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluororubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Mass

(g)

Stroke (mm)	Pad form Model	Flat/Flat with ribs	Deep	Bellows
6	ZPY2004 ZPY3507 ZPY4010 ZPY02 to 08 ZPY10 to 16 (Thin section series)	33	—	33
10	ZPY 10 to 16	45	45	46
10	ZPY 20 to 25	50	51	53
	ZPY 32	52	—	58
10	ZPY 40	115	117	127
	ZPY 50	132	—	134

Mass by Stroke

(g)

Stroke (mm)	10	15	20	25	30	40	50
Model							
ZPY02 to 08	+7	+8	—	+9	—	—	—
ZPY10 to 25	—	—	+12	—	+14	+26	+28
ZPY40, 50	—	—	-5.5	—	-1.5	—	+30

How to Order

Series ZPY
With buffer

ZPY

16

U

GS

K

20

- U6 -

A10

Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Pad type
(Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Buffer type

J	Rotating
K	Non-rotating

Buffer stroke
(Refer to "Table (2)" for applications.)

Vacuum entry port
(Refer to "Table (3)" for applications.)

Mounting thread/Male thread
(Refer to "Table (3)" for applications.)

Table (1) Pad Diameter/Pad Type

Dia. (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Type															
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	●	—	●	—	●	—	●	—
Bellows	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—

Table (2) Pad Diameter/Stroke

Dia. (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	Thin flat/Thin flat with ribs			10	13	16	20	25	32	40	50
Stroke								10	13	16								
6 mm	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
10 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 mm	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
20 mm	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
25 mm	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—
30 mm	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
40 mm	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	—	—
50 mm	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●

Table (3) Vacuum Entry/Mounting Thread Diameter

	Symbol	Thread dia./ Port size	ø2 to ø8 2 x 4, 3.5 x 7 4 x 10 ø10 to ø16 (Thin section series)	ø10 to ø32	ø40, ø50
Vacuum entry	N4	ø4 Nylon tube	●	●	—
	N6	ø6 Nylon tube	●	●	●
	U4	ø4 Urethane tube	●	●	—
	U6	ø6 Urethane tube	●	●	●
Mounting	A8	M8 x 1	●	—	—
	A10	M10 x 1	—	●	—
	A14	M14 x 1	—	—	●

Tightening Torque

Mounting thread diameter	Torque (N·m)
M8 x 1	2.0 ±0.5
M10 x 1	3.0 ±0.5
M14 x 1	7.0 ±0.5

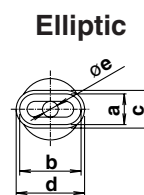
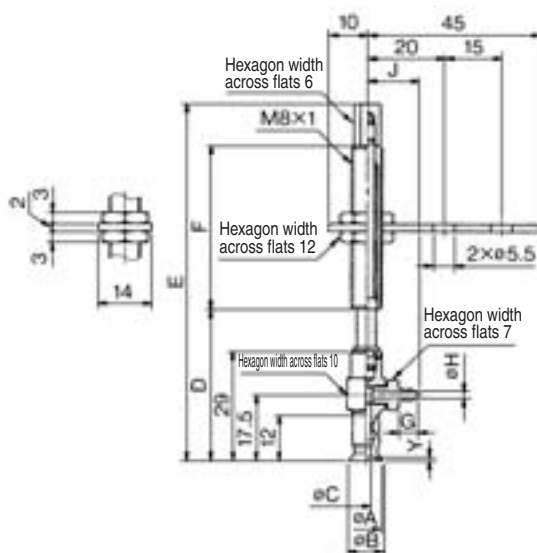
ZA
 ZX
 ZR
 ZM
 ZMA
 ZQ
 ZH
 ZU
 ZL
 ZY□
 ZF□
 ZP□
 SP
 ZCUK
 AMJ
 AMV
 AEP
 HEP

Related Equipment

Series ZPY

Connection	Barb fitting	Pad Form	Flat/Thin flat/Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/ø2, ø4, ø6, ø8, Thin flat/Thin flat with ribs/ø10, ø13, ø16, Elliptic/2004, 3507, 4010



Flat

Model	A	B	C	Y
ZPY02U□□□□□-□□- A8	2	2.6	1.2	0.5
ZPY04U□□□□□-□□- A8	4	4.8	1.6	0.8
ZPY06U□□□□□-□□- A8	6	7	2.5	
ZPY08U□□□□□-□□- A8	8	9		

Dimensions by Stroke

[illegible]

Elliptic

Model	a	b	c	d	e	Y
ZPY2004U	2	4	2.6	4.6	1.2	0.3
ZPY3507U	3.5	7	4.3	7.8	1.8	0.5
ZPY4010U	4	10	5	11	2	0.8

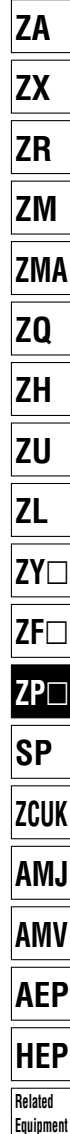
Thin Flat/Thin Flat with Ribs

Model	A	B	C	Y
ZPY10UT	10	11	2.5	1
ZPY13UT	13	14		1.5
ZPY16UT	16	17		0.8
ZPY10CT	10	11		
ZPY13CT	13	14		
ZPY16CT	16	17	1	

Flat/Flat with ribs/ø10, ø13, ø16



Deep/ø10, ø16



Related Equipment

Flat/Flat with Ribs

Dimensions by Stroke

Ø10, Ø16

Deep

Dimensions by Stroke

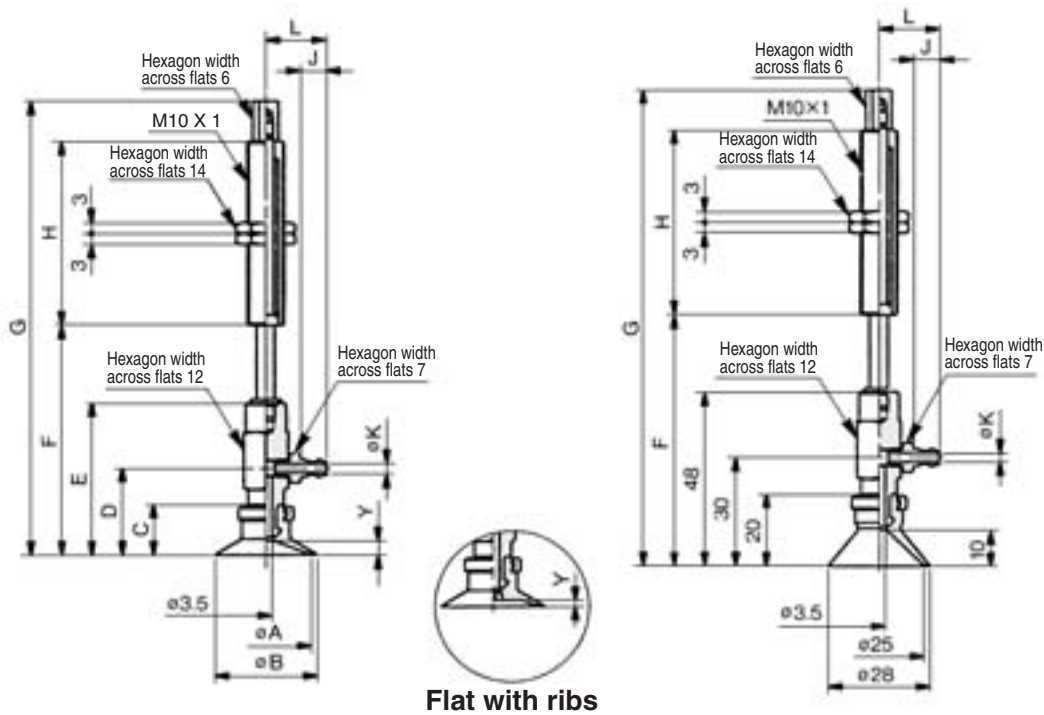
Dimensions by Tubing

Series ZPY

Connection	Barb fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/Flat with ribs/ø20, ø25, ø32

Deep/ø25



ø20, ø25, ø32

Flat/Flat with Ribs

Model	A	B	C	D	E	Y	
						Flat	Flat with ribs
ZPY20 _C □□□□□□□□□□A10	20	23	14	24	42	4	1.7
ZPY25 _C □□□□□□□□□□A10	25	28					1.8
ZPY32 _C □□□□□□□□□□A10	32	35	14.5	24.5	42.5	4.5	2.3

Dimensions by Stroke

Model	ø20, ø25		ø32		H
	F	G	F	G	
ZPY□□ _C □□□□□□□□□□A10	53	87	53.5	87.5	23
ZPY□□ _C □□□□□□□□□□A10	63	125	63.5	125.5	51
ZPY□□ _C □□□□□□□□□□A10	73	135	73.5	135.5	
ZPY□□ _C □□□□□□□□□□A10	83	171	83.5	171.5	77
ZPY□□ _C □□□□□□□□□□A10	93	181	93.5	181.5	

ø25

Deep

Model	F	G	H
ZPY25D□□□□10-□□□□A10	59	93	23
ZPY25D□□□□20-□□□□A10	69	131	51
ZPY25D□□□□30-□□□□A10	79	141	
ZPY25D□□□□40-□□□□A10	89	177	77
ZPY25D□□□□50-□□□□A10	99	187	

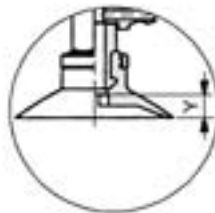
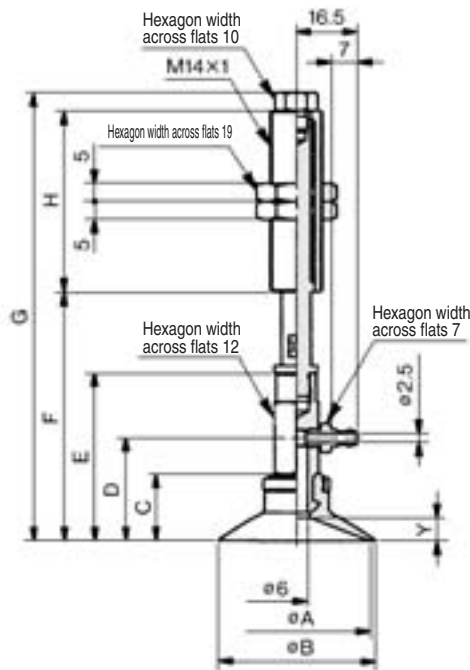
Dimensions by Tubing

Model	J	K	L
ZPY□□□□□□□□□□□□□□A10	5	1.8	14.5
ZPY□□□□□□□□□□□□□□A10	7	2.5	16.5

Vacuum Pad/
Lateral Vacuum Entry with Barb Fitting with Buffer **Series ZPY**

Connection	Barb fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread

Flat/Flat with ribs/ø40, ø50



Flat with ribs

ø40, ø50

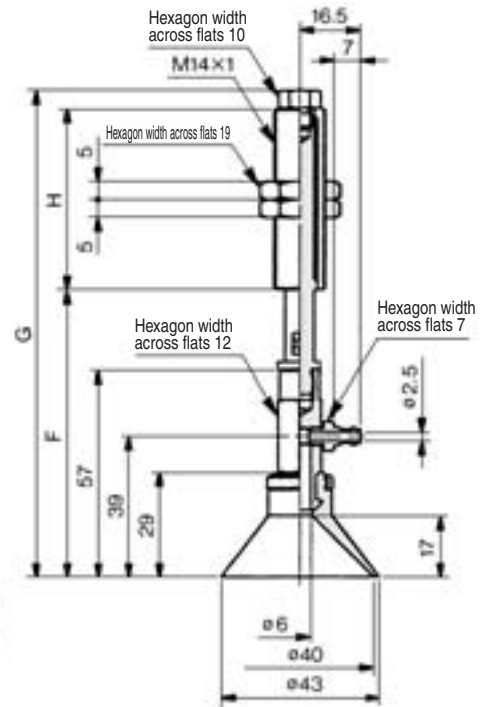
Flat/Flat with Ribs

Model	A	B	C	D	E	Y	
						Flat	Flat with ribs
ZPY40 ^U _C □□□□□□-□6-A14	40	43	18.5	28.5	46.5	6.5	3.3
ZPY50 ^U _C □□□□□□-□6-A14	50	53	19.5	29.5	47.5	7.5	3.8

Dimensions by Stroke

Model	ø40		ø50		H
	F	G	F	G	
ZPY□□ ^U _C □□□□10-□6-A14	58.5	126.5	59.5	127.5	50
ZPY□□ ^U _C □□□□20-□6-A14	68.5	123.5	69.5	124.5	
ZPY□□ ^U _C □□□□30-□6-A14	78.5	133.5	79.5	134.5	
ZPY□□ ^U _C □□□□50-□6-A14	98.5	178.5	99.5	179.5	75

Deep/ø40



ø40

Deep

Model	F	G	H
ZPY40D□□□□10-□6-A14	69	137	50
ZPY40D□□□□20-□6-A14	79	134	
ZPY40D□□□□30-□6-A14	89	144	
ZPY40D□□□□50-□6-A14	109	189	75

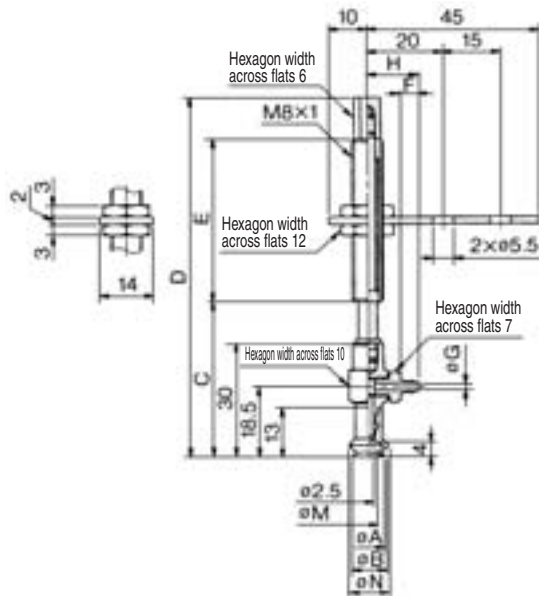
ZA
ZX
ZR
ZM
ZMA
ZQ
ZH
ZU
ZL
ZY□
ZF□
ZP□
SP
ZCUK
AMJ
AMV
AEP
HEP

Related
Equipment

Series ZPY

Connection	Barb fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Bellows/ø6, ø8



Ø6, Ø8

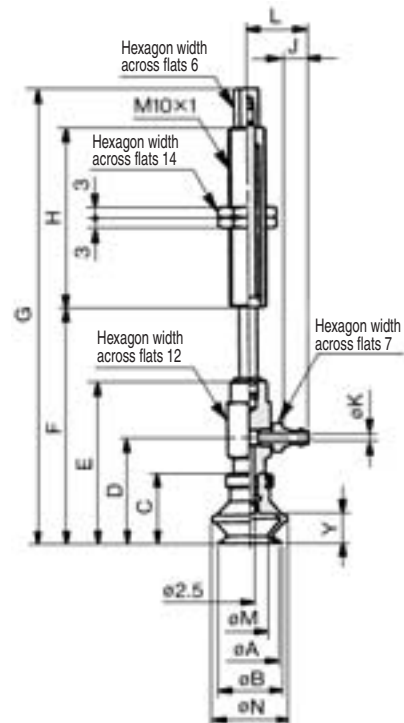
Bellows

Model	A	B	M	N
ZPY06B□□□□□-□□- A8	6	7	3.3	9
ZPY08B□□□□□-□□- A8	8	9	4.7	10

Dimensions by Stroke

[illegible]

Bellows/ø10, ø13, ø16



Ø10, Ø13, Ø16

Bellows

Model	A	B	C	D	E	M	N	Y
ZPY10B□□□□□-□□- A10	10	12	16	25	42	6	14	5.5
ZPY13B□□□□□-□□- A10	13	15	18.5	28.5	44.5	9	19	7.5
ZPY16B□□□□□-□□- A10	16	18	20	30	46	10	21	8.5

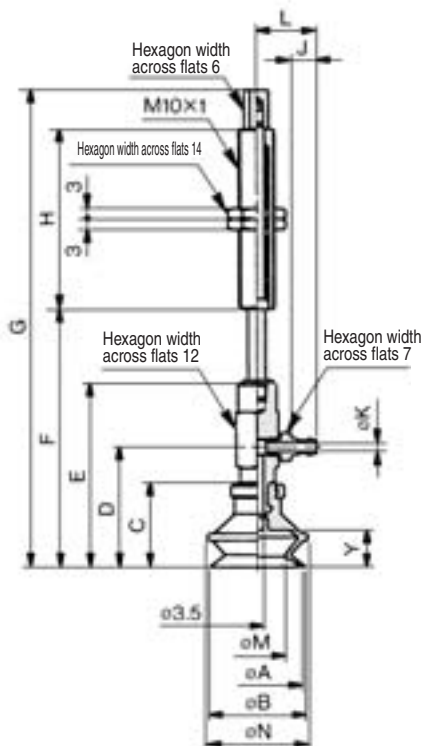
Dimensions by Stroke

[illegible]

Vacuum Pad/
Lateral Vacuum Entry with Barb Fitting with Buffer **Series ZPY**

Connection	Barb fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread

Bellows/ø20, ø25, ø32



ø20, ø25, ø32

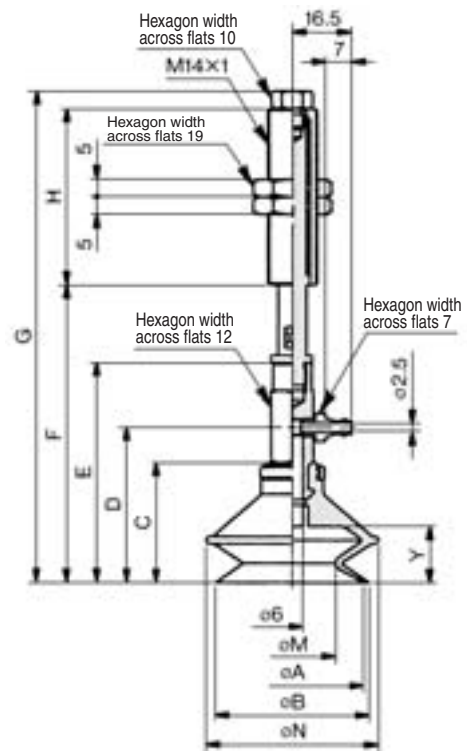
Bellows

Model	A	B	C	D	E	M	N	Y
ZPY20B□□□□□-□□-A10	20	22	23.5	33.5	51.5	12	25	10.5
ZPY25B□□□□□-□□-A10	25	27	24	34	52	16	28	
ZPY32B□□□□□-□□-A10	32	34	29	39	57	19	37	14

Dimensions by Stroke

Model	ø20		ø25		ø32		H	ø4 tube			ø6 tube		
	F	G	F	G	F	G		J	K	L	J	K	L
ZPY□□B□□□□10-□□-A10	62.5	96.5	63	97	68	102	23						
ZPY□□B□□□□20-□□-A10	74.5	136.5	75	137	80	142	51						
ZPY□□B□□□□30-□□-A10	84.5	146.5	85	147	90	152	77	5	1.8	14.5	7	2.5	16.5
ZPY□□B□□□□40-□□-A10	94.5	182.5	95	183	100	188							
ZPY□□B□□□□50-□□-A10	104.5	192.5	105	193	110	198							

Bellows/ø40, ø50



ø40, ø50

Bellows

Model	A	B	C	D	E	M	N	Y
ZPY40B□□□□□-□□-A14	40	43	34	44	62	24	48	16
ZPY50B□□□□□-□□-A14	50	53	38	48	66	32	57	19

Dimensions by Stroke

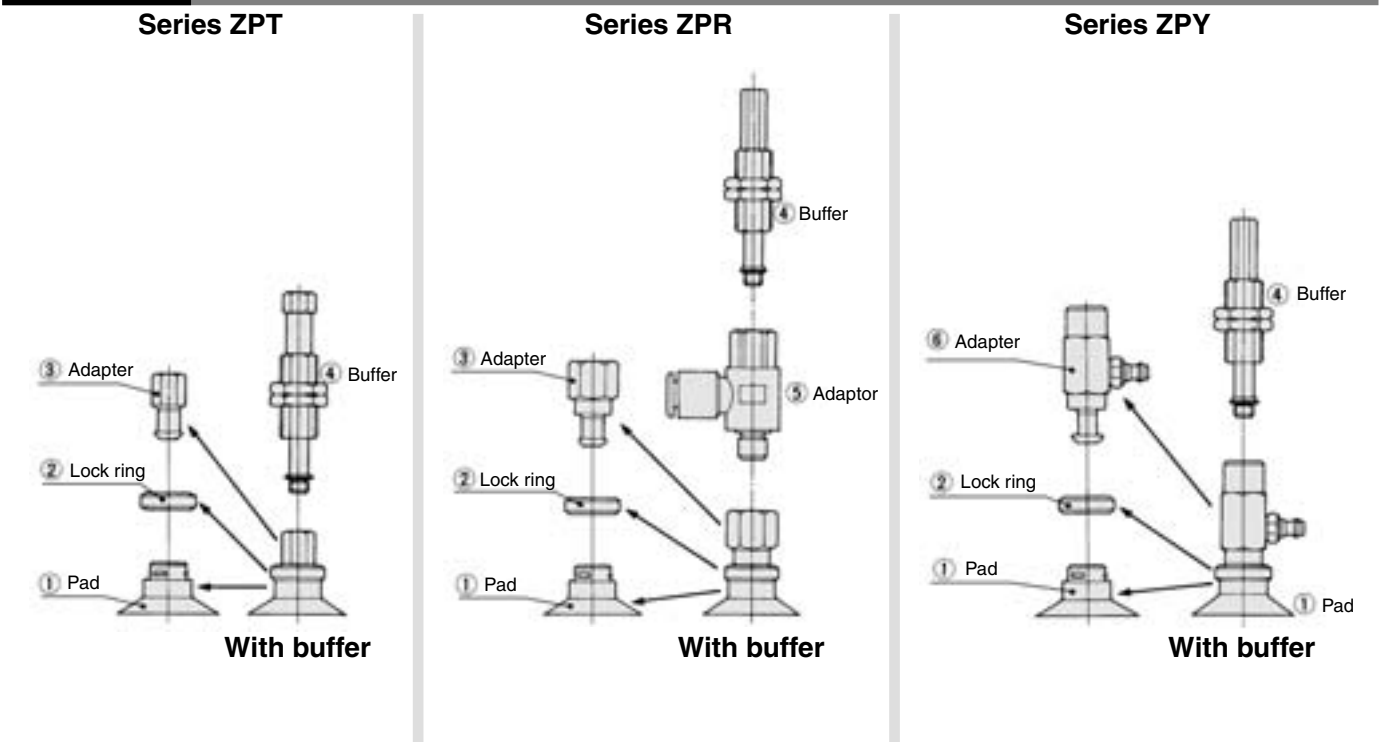
Model	ø40		ø50		H
	F	G	F	G	
ZPY□□B□□□□10-□□-A14	74	142	78	146	50
ZPY□□B□□□□20-□□-A14	84	139	88	143	
ZPY□□B□□□□30-□□-A14	94	149	98	153	
ZPY□□B□□□□50-□□-A14	114	194	118	198	75

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

Vacuum Pad/Components

Refer to pages 1182 to 1187 for part numbers of ③ to ⑥.

Construction

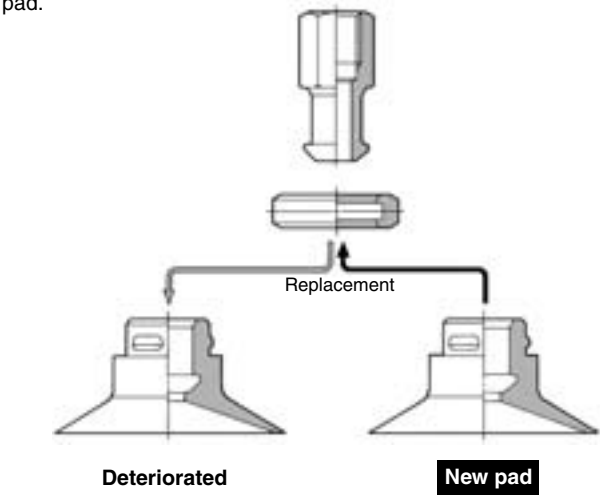


Component Parts

No.	Description	Material	Note
1	Pad	Conductive NBR, Conductive silicon rubber, NBR, Silicon rubber, Urethane rubber, Fluoro rubber	
2	Lock ring	Brass	Electroless nickel plated
3	Adapter	Brass	Electroless nickel plated
4	Buffer	Brass	Electroless nickel plated
5	Adapter (with one-touch fitting)	Brass, PBT	Electroless nickel plated
6	Adapter (with barb fitting)	Brass	Electroless nickel plated

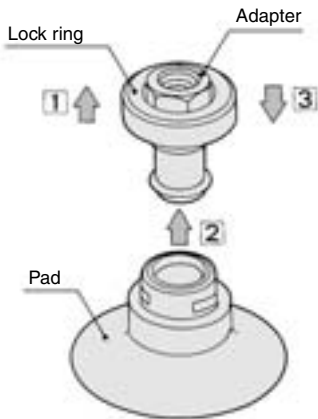
Maintenance of Pad

Since pads are essentially rubber, deterioration is unavoidable. The rate of deterioration depends upon factors such as conditions of use, environment and temperature. Regular maintenance should be performed. If any damage, splitting, cracking or abrasion has occurred in a pad which appears to be harmful, replace it immediately. Also, take care not to damage the outside surface of the pad.



How to Replace

1. Pull the lock ring upward, and after lifting it to the adapter, remove the old pad by pulling it downward.
2. While holding the lock ring in the raised position, place a new pad onto the adapter.
3. Confirm that the pad is securely in place, and then return the lock ring to its original position.



Replacement Parts: Pad Unit (With lock ring/Without lock ring)

How to Order Pad Unit

ZP 10 U N - X19

Pad dia. (mm)	
02	2
04	4
06	6
08	8
10	10
13	13
16	16
20	20
25	25
32	32
40	40
50	50

Lock ring	
Nil	With lock ring
-X19	Without lock ring (ø10 or larger)

Material	
N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

Pad type	
U	Flat
C	Flat with ribs
D	Deep
B	Bellows

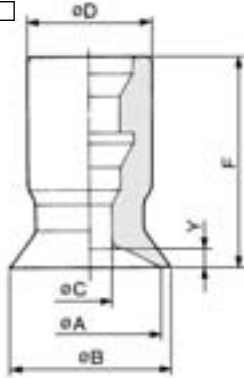
How to Order Lock Ring Unit

ZPL 1

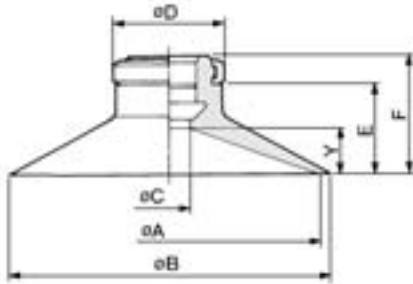
Applicable pad dia. (mm)	
1	10 to 16
2	20 to 32
3	40, 50

Flat (U) Refer to page 1181 for the Elliptic.

ZP02U□ to 08U□



ZP10U□ to 50U□

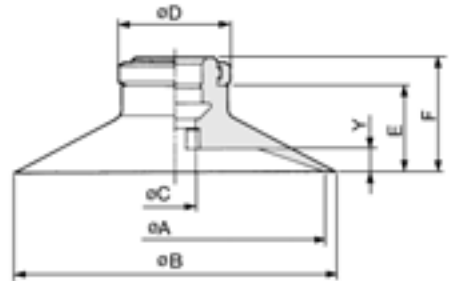


Model	Size	A	B	C	D	E	F	Y
ZP02U□	U02	2	2.6	1.2	7	—	12	0.5
ZP04U□	U04	4	4.8	1.6	7	—	12	0.8
ZP06U□	U06	6	7	2.5	7	—	12	0.8
ZP08U□	U08	8	9	2.5	7	—	12	1
ZP10U□	U10	10	12	4	13	7.7	12	3
ZP13U□	U13	13	15	4	13	7.7	12	3
ZP16U□	U16	16	18	4	13	8.2	12.5	3.5
ZP20U□	U20	20	23	4	15	9.5	14	4
ZP25U□	U25	25	28	4	15	9.5	14	4
ZP32U□	U32	32	35	4	15	10	14.5	4.5
ZP40U□	U40	40	43	7	18	13.7	18.5	6.5
ZP50U□	U50	50	53	7	18	14.7	19.5	7.5

* Put in the symbol for material at the end of model no.

Flat with Ribs (C)

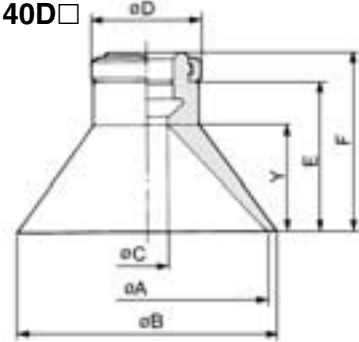
ZP10C□ to 50C□



Model	Size	A	B	C	D	E	F	Y
ZP10C□	C10	10	12	4	13	7.7	12	1.7
ZP13C□	C13	13	15	4	13	7.7	12	1.8
ZP16C□	C16	16	18	4	13	8.2	12.5	1.2
ZP20C□	C20	20	23	4	15	9.5	14	1.7
ZP25C□	C25	25	28	4	15	9.5	14	1.8
ZP32C□	C32	32	35	4	15	10	14.5	2.3
ZP40C□	C40	40	43	7	18	13.7	18.5	3.3
ZP50C□	C50	50	53	7	18	14.7	19.5	3.8

Deep (D)

ZP10D□ to 40D□



Model	Size	A	B	C	D	E	F	Y
ZP10D□	D10	10	12	4	13	10.7	15	6
ZP16D□	D16	16	18	4	13	11.7	16	7
ZP25D□	D25	25	28	4	15	15.5	20	10
ZP40D□	D40	40	43	7	18	24.2	29	17

ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

AEP

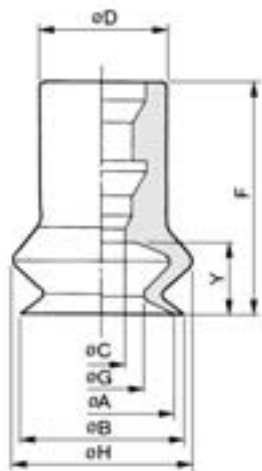
HEP

Related Equipment

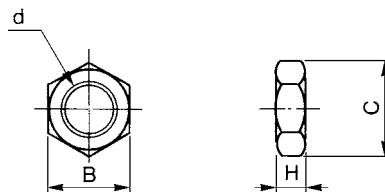
Replacement Parts: Pad Unit (With lock ring/Without lock ring)

Bellows (B)/With Lock Ring

Pad diameter: $\phi 6$ to $\phi 8$
ZP06B□ to 08B□

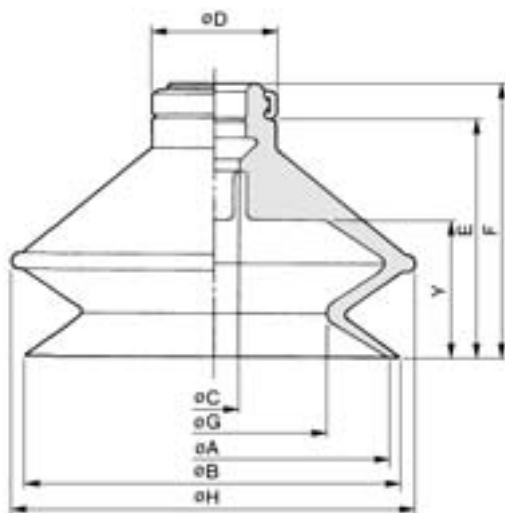


Buffer Mounting Nut



Model	d	H	B	C
ZPNA-M5	M5 x 0.8	4	8	9.2
ZPNA-M6	M6 x 1	3	8	9.2
ZPNA-M8	M8 x 1	3	12	13.9
ZPNA-M10	M10 x 1	3	14	16.2
ZPNA-M14	M14 x 1	5	19	21.9

Pad diameter: $\phi 10$ to $\phi 50$
ZP10B□ to 50B□



Model	Size	A	B	C	D	E	F	G	H	Y
ZP06B□	B06	6	7	2.5	7	—	13	3.3	9	4
ZP08B□	B08	8	9	2.5	7	—	13	4.7	10	4
ZP10B□	B10	10	12	4	13	11.7	16	6	14	5.5
ZP13B□	B13	13	15	4	13	14.2	18.5	9	19	7.5
ZP16B□	B16	16	18	4	13	15.7	20	10	21	8.5
ZP20B□	B20	20	22	4	15	19	23.5	12	25	10.5
ZP25B□	B25	25	27	4	15	19.5	24	16	28	10.5
ZP32B□	B32	32	34	4	15	24.5	29	19	37	14
ZP40B□	B40	40	43	7	18	29.2	34	24	48	16
ZP50B□	B50	50	53	7	18	33.2	38	32	57	19

* Put in the symbol for material at the end of model no.

Replacement Parts: Pad Unit (With lock ring/Without lock ring)

How to Order/Pad Unit

Thin flat (UT), Thin flat with ribs (CT)

ZP 10 UT N

Pad diameter

10	10
13	13
16	16

Pad type

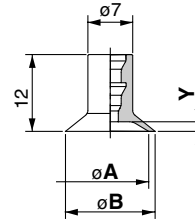
UT	Thin flat
CT	Thin flat with ribs

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

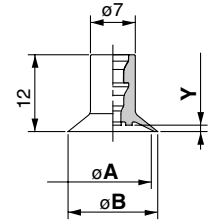
Dimensions

Thin flat



ZP□□UT□□

Thin flat with ribs



ZP□□CT□□

Dimensions (mm)

Model	A	B	Y
ZP10UT□□	10	11	1
ZP13UT□□	13	14	1.5
ZP16UT□□	16	17	1.5

Dimensions (mm)

Model	A	B	Y
ZP10CT□□	10	11	0.8
ZP13CT□□	13	14	1
ZP16CT□□	16	17	1

Elliptic

ZP 2004 U N

Pad diameter
(Breadth x Length)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10

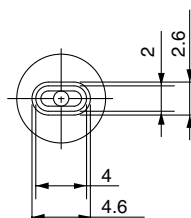
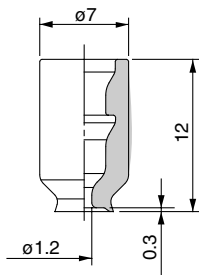
Pad type

U	Flat
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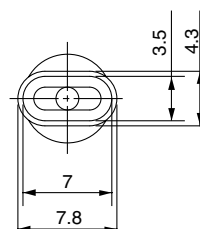
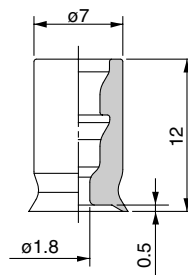
Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluororubber
GN	Conductive NBR
GS	Conductive silicon rubber

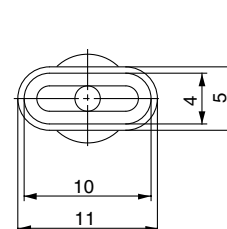
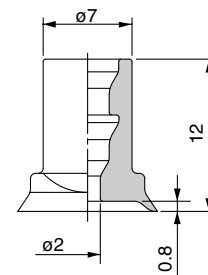
Dimensions



ZP2004U□□



ZP3507U□□



ZP4010U□□

Replacement Parts: Adapter/Buffer (Series ZPT)

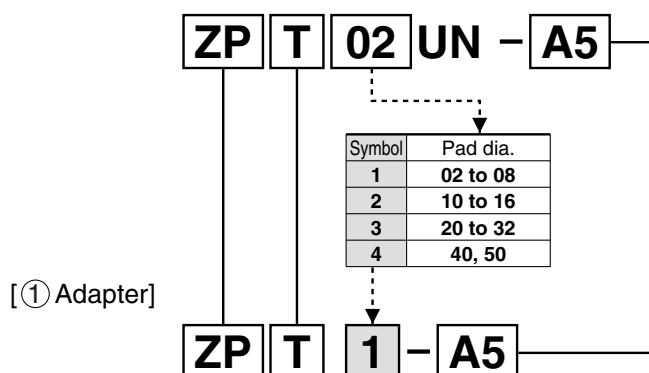
Appropriate adaptor or buffer can be selected for the currently used pad model.

● Without buffer

— The same symbol

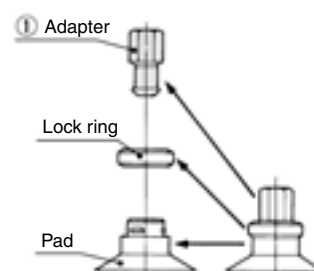
←···· Replacement of the symbol

[Pad model no.]



[① Adapter]

Construction



Applicable pad diameter: $\phi 2$ to $\phi 8$

2 x 4, 3.5 x 7, 4 x 10

$\phi 10$ to $\phi 16$ (Thin section series)

Model	① Adapter
ZPT□□□□-A5	ZPT1-A5
ZPT□□□□-A6	ZPT1-A6
ZPT□□□□-B4	ZPT1-B4
ZPT□□□□-B5	ZPT1-B5

Applicable pad diameter: $\phi 10$ to $\phi 16$

Model	① Adapter
ZPT□□□□-A5	ZPT2-A5
ZPT□□□□-A6	ZPT2-A6
ZPT□□□□-B5	ZPT2-B5
ZPT□□□□-B6	ZPT2-B6
ZPT□□□□-B01	ZPT2-B01
ZPT□□□□-N01	ZPT2-N01
ZPT□□□□-T01	ZPT2-T01

Applicable pad diameter: $\phi 20$ to $\phi 32$

Model	① Adapter
ZPT□□□□-A6	ZPT3-A6
ZPT□□□□-A8	ZPT3-A8
ZPT□□□□-B5	ZPT3-B5
ZPT□□□□-B6	ZPT3-B6
ZPT□□□□-B8	ZPT3-B8
ZPT□□□□-B01	ZPT3-B01
ZPT□□□□-N01	ZPT3-N01
ZPT□□□□-T01	ZPT3-T01

Applicable pad diameter: $\phi 40$, $\phi 50$

Model	① Adapter
ZPT□□□□-A6	ZPT4-A6
ZPT□□□□-A8	ZPT4-A8
ZPT□□□□-B6	ZPT4-B6
ZPT□□□□-B8	ZPT4-B8
ZPT□□□□-B01	ZPT4-B01
ZPT□□□□-N01	ZPT4-N01
ZPT□□□□-T01	ZPT4-T01

Replacement Parts: Adapter/Buffer (Series ZPT)

● With buffer

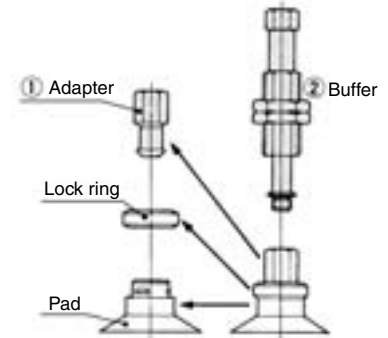
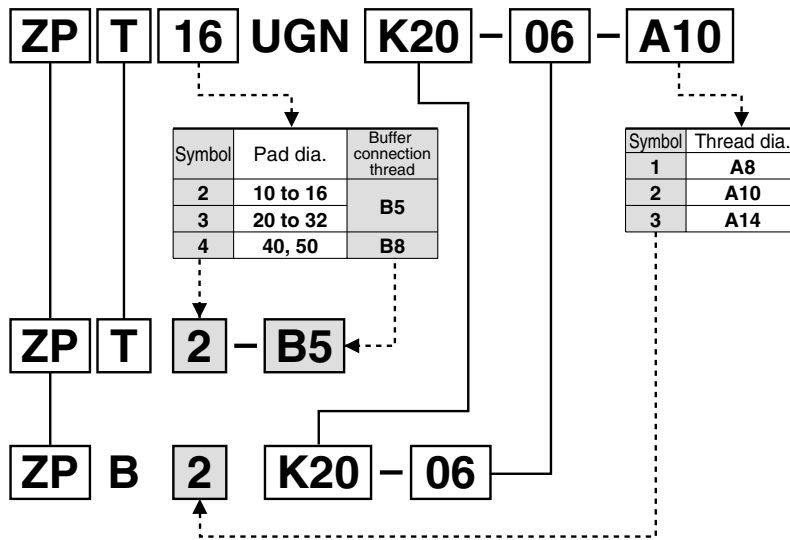
— The same symbol
 ◀ Replacement of the symbol

Construction

[Pad model no.]

[① Adapter]
 Not for use with
 a pad diameter
 of 2 to 8 mm.

[② Buffer]



* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs, and Elliptic.

Applicable pad diameter: ø2 to ø8
 2 x 4, 3.5 x 7, 4 x 10
 ø10 to ø16 (Thin section series)

Model	② Buffer only
ZPT□□□□(J-K)★★-B3-A8	ZPB1(J-K)★★-B3
ZPT□□□□(J-K)★★-B5-A8	ZPB1(J-K)★★-B5
ZPT□□□□(J-K)★★-N4-A8	ZPB1(J-K)★★-N4
ZPT□□□□(J-K)★★-U4-A8	ZPB1(J-K)★★-U4
ZPT□□□□(J-K)★★-04-A8	ZPB1(J-K)★★-04
ZPT□□□□(J-K)★★-06-A8	ZPB1(J-K)★★-06

Note) Applicable buffer stroke (★★): 6, 10, 15, 25 mm

Applicable pad diameter: ø10 to ø16

Model	① Adapter	② Buffer
ZPT□□□□(J-K)★★-B5-A10	ZPT2-B5	ZPB2(J-K)★★-B5
ZPT□□□□(J-K)★★-N6-A10	ZPT2-B5	ZPB2(J-K)★★-N6
ZPT□□□□(J-K)★★-U6-A10	ZPT2-B5	ZPB2(J-K)★★-U6
ZPT□□□□(J-K)★★-04-A10	ZPT2-B5	ZPB2(J-K)★★-04
ZPT□□□□(J-K)★★-06-A10	ZPT2-B5	ZPB2(J-K)★★-06

Note) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm

Applicable pad diameter: ø20 to ø32

Model	① Adapter	② Buffer
ZPT□□□□(J-K)★★-B5-A10	ZPT3-B5	ZPB2(J-K)★★-B5
ZPT□□□□(J-K)★★-N6-A10	ZPT3-B5	ZPB2(J-K)★★-N6
ZPT□□□□(J-K)★★-U6-A10	ZPT3-B5	ZPB2(J-K)★★-U6
ZPT□□□□(J-K)★★-04-A10	ZPT3-B5	ZPB2(J-K)★★-04
ZPT□□□□(J-K)★★-06-A10	ZPT3-B5	ZPB2(J-K)★★-06

Note) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm

Applicable pad diameter: ø40, ø50

Model	① Adapter	② Buffer
ZPT□□□□(J-K)★★-B5-A14	ZPT4-B8	ZPB3(J-K)★★-B5
ZPT□□□□(J-K)★★-□01-A14	ZPT4-B8	ZPB3(J-K)★★-□01
ZPT□□□□(J-K)★★-N6-A14	ZPT4-B8	ZPB3(J-K)★★-N6
ZPT□□□□(J-K)★★-U6-A14	ZPT4-B8	ZPB3(J-K)★★-U6
ZPT□□□□(J-K)★★-06-A14	ZPT4-B8	ZPB3(J-K)★★-06
ZPT□□□□(J-K)★★-08-A14	ZPT4-B8	ZPB3(J-K)★★-08

Note) Applicable buffer stroke (★★): 10, 20, 30, 50 mm

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

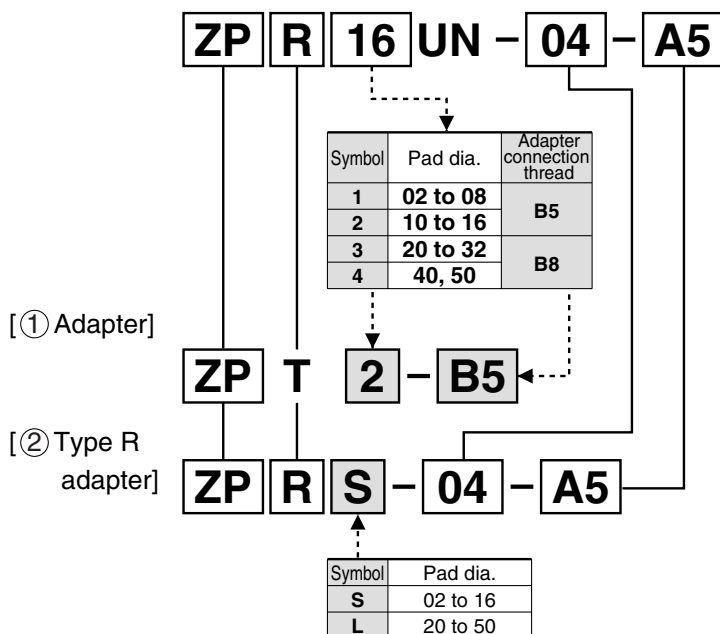
Replacement Parts: Adapter/Buffer (Series ZPR)

● Without buffer

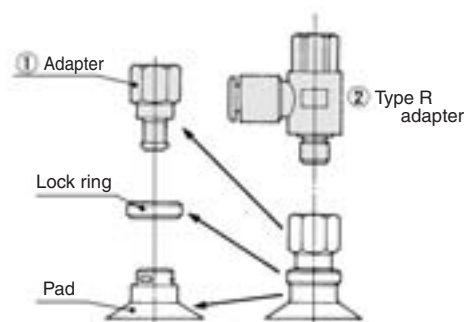
— The same symbol

◀····· Replacement of the symbol

[Pad model no.]



Construction



Applicable pad diameter: ø2 to ø8

2 x 4, 3.5 x 7, 4 x 10

ø10 to ø16 (Thin section series)

Model	① Type T adapter	② Type R adapter
ZPR□□□□-☆☆-A5	ZPT1-B5	ZPRS-☆☆-A5
ZPR□□□□-☆☆-A6	ZPT1-B5	ZPRS-☆☆-A6
ZPR□□□□-☆☆-B4	ZPT1-B5	ZPRS-☆☆-B4
ZPR□□□□-☆☆-B5	ZPT1-B5	ZPRS-☆☆-B5

Note) Vacuum entry (☆☆): 04, 06

Applicable pad diameter: ø10 to ø16

Model	① Type T adapter	② Type R adapter
ZPR□□□□-☆☆-A5	ZPT2-B5	ZPRS-☆☆-A5
ZPR□□□□-☆☆-A6	ZPT2-B5	ZPRS-☆☆-A6
ZPR□□□□-☆☆-B5	ZPT2-B5	ZPRS-☆☆-B5
ZPR□□□□-☆☆-B6	ZPT2-B5	ZPRS-☆☆-B6

Note) Vacuum entry (☆☆): 04, 06

Applicable pad diameter: ø20 to ø32

Model	① Type T adapter	② Type R adapter
ZPR□□□□-☆☆-A6	ZPT3-B8	ZPRL-☆☆-A6
ZPR□□□□-☆☆-A8	ZPT3-B8	ZPRL-☆☆-A8
ZPR□□□□-☆☆-B5	ZPT3-B8	ZPRL-☆☆-B5
ZPR□□□□-☆☆-B6	ZPT3-B8	ZPRL-☆☆-B6
ZPR□□□□-☆☆-B8	ZPT3-B8	ZPRL-☆☆-B8

Note) Vacuum entry (☆☆): 04, 06, 08

Applicable pad diameter: ø40, ø50

Model	① Type T adapter	② Type R adapter
ZPR□□□□-☆☆-A6	ZPT4-B8	ZPRL-☆☆-A6
ZPR□□□□-☆☆-A8	ZPT4-B8	ZPRL-☆☆-A8
ZPR□□□□-☆☆-B6	ZPT4-B8	ZPRL-☆☆-B6
ZPR□□□□-☆☆-B8	ZPT4-B8	ZPRL-☆☆-B8

Note) Vacuum entry (☆☆): 06, 08

Replacement Parts: Adapter/Buffer (Series ZPR)

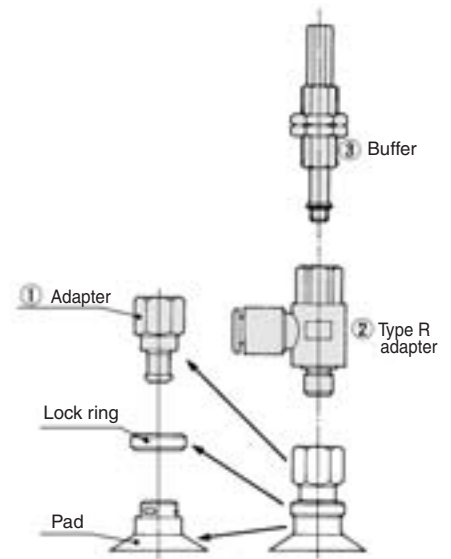
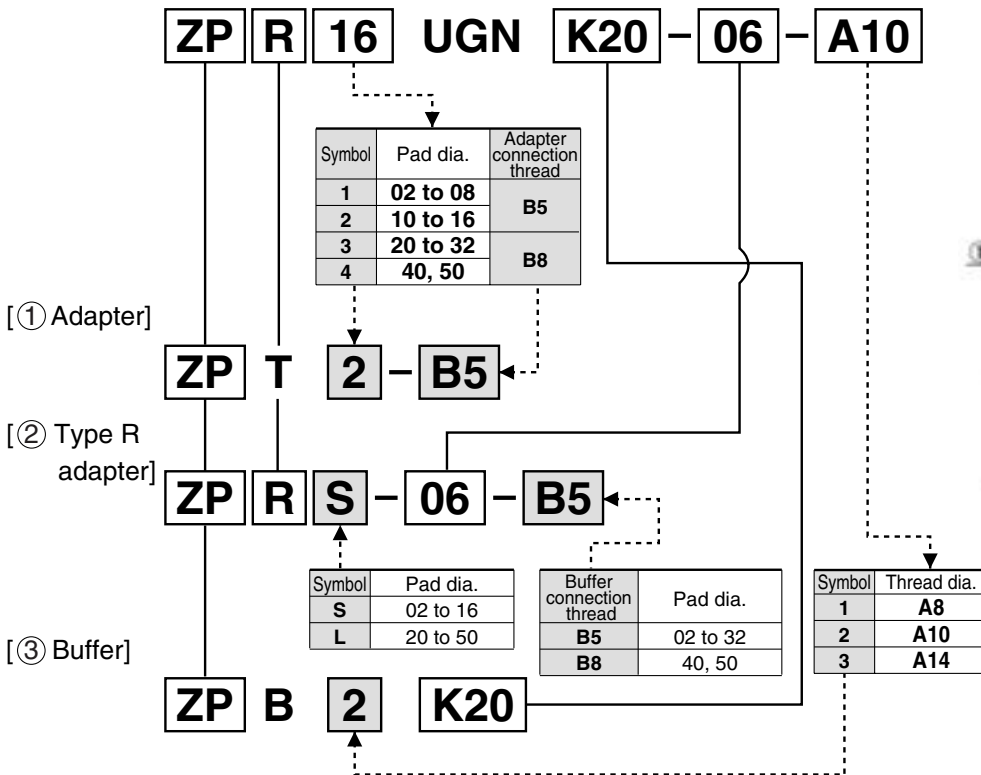
● With buffer

— The same symbol

← Replacement of the symbol

Construction

[Pad model no.]



* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs, and Elliptic.

Applicable pad diameter: ø2 to ø8
2 x 4, 3.5 x 7, 4 x 10
ø10 to ø16 (Thin section series)

Model	① Type T adapter	② Type R adapter	③ Buffer
ZPR□□□□(J-K)★★-☆☆-A8	ZPT1-B5	ZPRS-☆☆-B5	ZPB1(J-K)★★

Note 1) Applicable buffer stroke (★★): 6, 10, 15, 25 mm

Note 2) Vacuum entry (☆☆): 04, 06

Applicable pad diameter: ø10 to ø16

Model	① Type T adapter	② Type R adapter	③ Buffer
ZPR□□□□(J-K)★★-☆☆-A10	ZPT2-B5	ZPRS-☆☆-B5	ZPB2(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm

Note 2) Vacuum entry (☆☆): 04, 06

Applicable pad diameter: ø20 to ø32

Model	① Type T adapter	② Type R adapter	③ Buffer
ZPR□□□□(J-K)★★-☆☆-A10	ZPT3-B8	ZPRL-☆☆-B5	ZPB2(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm

Note 2) Vacuum entry (☆☆): 04, 06, 08

Applicable pad diameter: ø40, ø50

Model	① Type T adapter	② Type R adapter	③ Buffer
ZPR□□□□(J-K)★★-☆☆-A14	ZPT4-B8	ZPRL-☆☆-B8	ZPB3(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 50 mm

Note 2) Vacuum entry (☆☆): 06, 08

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

Related Equipment

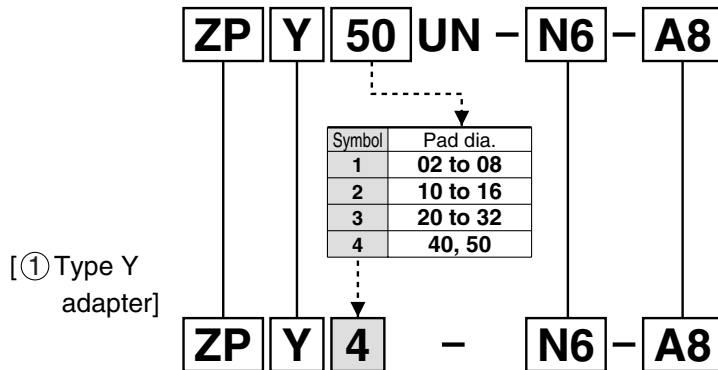
Replacement Parts: Adapter/Buffer (Series ZPY)

● Without buffer

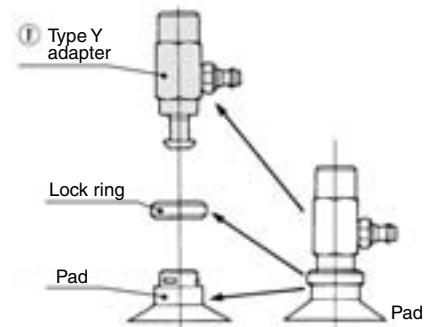
— The same symbol

← Replacement of the symbol

[Pad model no.]



Construction



Applicable pad diameter: ø2 to ø8

2 x 4, 3.5 x 7, 4 x 10

ø10 to ø16 (Thin section series)

Model	① Adapter
ZPY□□□□-◆◆-A5	ZPY1-◆◆-A5
ZPY□□□□-◆◆-A6	ZPY1-◆◆-A6
ZPY□□□□-◆◆-B4	ZPY1-◆◆-B4
ZPY□□□□-◆◆-B5	ZPY1-◆◆-B5

Note) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø10 to ø16

Model	① Adapter
ZPY□□□□-◆◆-A5	ZPY2-◆◆-A5
ZPY□□□□-◆◆-A6	ZPY2-◆◆-A6
ZPY□□□□-◆◆-B5	ZPY2-◆◆-B5
ZPY□□□□-◆◆-B6	ZPY2-◆◆-B6

Note) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø20 to ø32

Model	① Adapter
ZPY□□□□-◆◆-A6	ZPY3-◆◆-A6
ZPY□□□□-◆◆-A8	ZPY3-◆◆-A8
ZPY□□□□-◆◆-B5	ZPY3-◆◆-B5
ZPY□□□□-◆◆-B6	ZPY3-◆◆-B6
ZPY□□□□-◆◆-B8	ZPY3-◆◆-B8

Note) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø40, ø50

Model	① Adapter
ZPY□□□□-◆◆-A6	ZPY4-◆◆-A6
ZPY□□□□-◆◆-A8	ZPY4-◆◆-A8
ZPY□□□□-◆◆-B6	ZPY4-◆◆-B6
ZPY□□□□-◆◆-B8	ZPY4-◆◆-B8

Note) Vacuum entry (◆◆): N6, U6

Replacement Parts: Adapter/Buffer (Series ZPY)

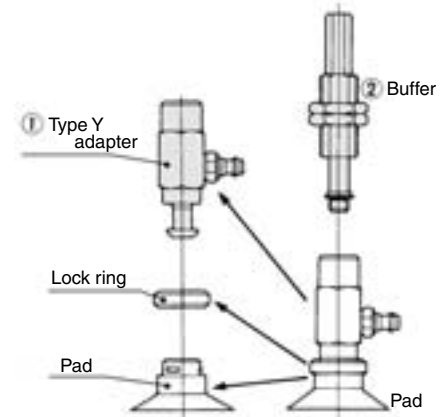
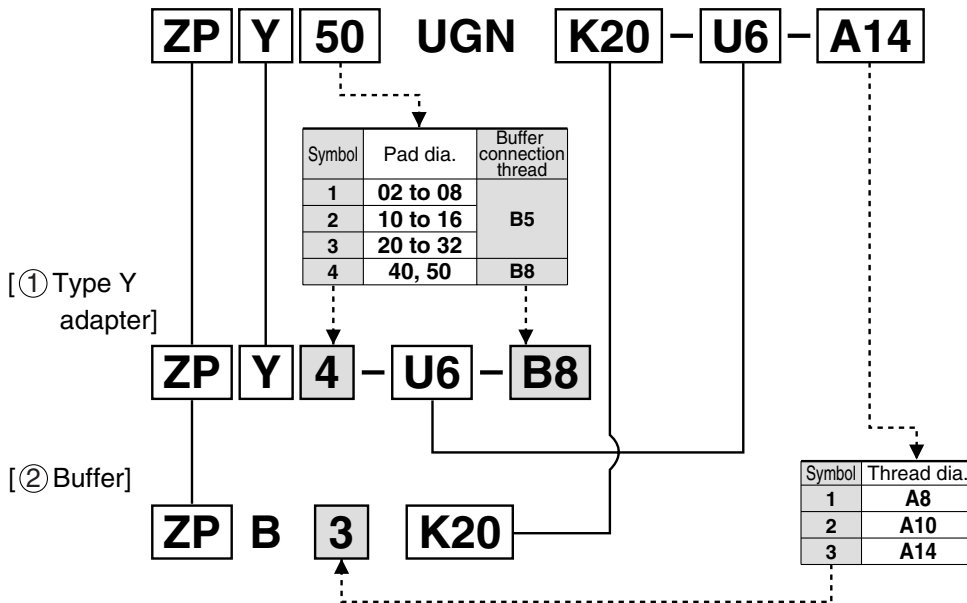
● With buffer

— The same symbol

← Replacement of the symbol

Construction

[Pad model no.]



* Refer to ø2 to ø8 for Thin flat, Thin flat with ribs, and Elliptic.

Applicable pad diameter: ø2 to ø8
2 x 4, 3.5 x 7, 4 x 10
ø10 to ø16 (Thin section series)

Model	① Adapter	② Buffer
ZPY□□□□(J-K)★★-◆◆-A8	ZPY1-◆◆-B5	ZPB1(J-K)★★

Note 1) Applicable buffer stroke (★★): 6, 10, 15, 25 mm
Note 2) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø10 to ø16

Model	① Adapter	② Buffer
ZPY□□□□(J-K)★★-◆◆-A10	ZPY2-◆◆-B5	ZPB2(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm
Note 2) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø20 to ø32

Model	① Adapter	② Buffer
ZPY□□□□(J-K)★★-◆◆-A10	ZPY3-◆◆-B5	ZPB2(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 40, 50 mm
Note 2) Vacuum entry (◆◆): N4, N6, U4, U6

Applicable pad diameter: ø40, ø50

Model	① Adapter	② Buffer
ZPY□□□□(J-K)★★-◆◆-A14	ZPT4-B8	ZPB3(J-K)★★

Note 1) Applicable buffer stroke (★★): 10, 20, 30, 50 mm
Note 2) Vacuum entry (◆◆): N6, U6

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