



# Vacuum pad / Thin pad type

## Specification and Order expression

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### How to order

<b>PAG</b>	<b>F</b>	<b>10</b>	x		<b>S</b>	<b>R</b>																																																					
Vacuum pad	Bracket	Vacuum pad outer dia.		Stroke	Vacuum pad material	With free holder																																																					
PAG series Vacuum pad	Vertical connection  F	<table border="1"> <thead> <tr> <th>Mark</th> <th>Diameter (mm)</th> </tr> </thead> <tbody> <tr><td>10</td><td>Ø10</td></tr> <tr><td>15</td><td>Ø15</td></tr> <tr><td>20</td><td>Ø20</td></tr> <tr><td>25</td><td>Ø25</td></tr> <tr><td>35</td><td>Ø35</td></tr> <tr><td>50</td><td>Ø50</td></tr> </tbody> </table>	Mark	Diameter (mm)	10	Ø10	15	Ø15	20	Ø20	25	Ø25	35	Ø35	50	Ø50		<table border="1"> <thead> <tr> <th>Type</th> <th>Mark</th> <th>Diameter (mm)</th> </tr> </thead> <tbody> <tr><td rowspan="2">10</td><td>4</td><td>4 mm</td></tr> <tr><td>10</td><td>10 mm</td></tr> <tr><td rowspan="2">15</td><td>4</td><td>4 mm</td></tr> <tr><td>10</td><td>10 mm</td></tr> <tr><td rowspan="2">20</td><td>6</td><td>6 mm</td></tr> <tr><td>15</td><td>15 mm</td></tr> <tr><td rowspan="2">25</td><td>6</td><td>6 mm</td></tr> <tr><td>15</td><td>15 mm</td></tr> <tr><td rowspan="2">35</td><td>6</td><td>6 mm</td></tr> <tr><td>15</td><td>15 mm</td></tr> <tr><td rowspan="2">50</td><td>6</td><td>6 mm</td></tr> <tr><td>15</td><td>15 mm</td></tr> </tbody> </table>	Type	Mark	Diameter (mm)	10	4	4 mm	10	10 mm	15	4	4 mm	10	10 mm	20	6	6 mm	15	15 mm	25	6	6 mm	15	15 mm	35	6	6 mm	15	15 mm	50	6	6 mm	15	15 mm	S : Silica gel (Silicon) Silicon rubber	<table border="1"> <thead> <tr> <th>Rotary bracket</th> <th>Outer dia. (mm)</th> </tr> </thead> <tbody> <tr><td>PAR 05</td><td>Ø05~Ø15</td></tr> <tr><td>PAR 20</td><td>Ø20~Ø50</td></tr> </tbody> </table>	Rotary bracket	Outer dia. (mm)	PAR 05	Ø05~Ø15	PAR 20	Ø20~Ø50
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Note 1: Only available to PAGFS, PAGTS series.  
Note 2: Please refer to P.3-2.49 ~ P.3-2.50

Vertical connection (With fitting)   
Horizontal connection   
Vertical spring type   
Horizontal spring type

### Vacuum pad material

Mark	Material	Hardness (HS)	Ambient and fluid temperature	Color
S	Silica gel (Silicon), Silicon rubber	A55/S	-60~250°C	Blue

### Vacuum control system

The theoretical suction force is calculated according to pad size and the vacuum value occurred.

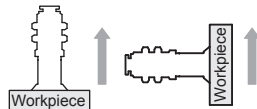
The formula is for reference only, please apply vacuum pad and test in actual practical usage.

The theoretical suction force is the value in static conditions, but the object weight and movement (ex. lifting, stopping, rotating..etc.) should be considered while processing in high speed, then please do make sure enough buffer to manage.

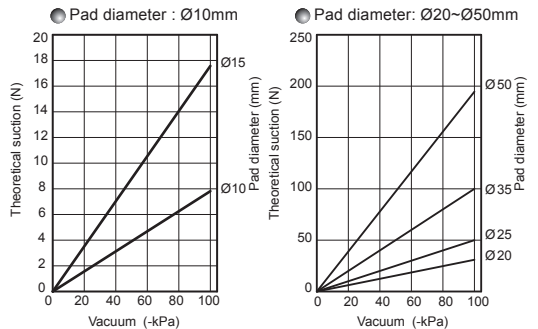
### Calculation formula

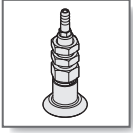
$$W = \frac{P \times A}{-10}$$

W: Force N  
P : Vacuum pressure kPa  
A : Pad area cm<sup>2</sup>



### Theoretical suction



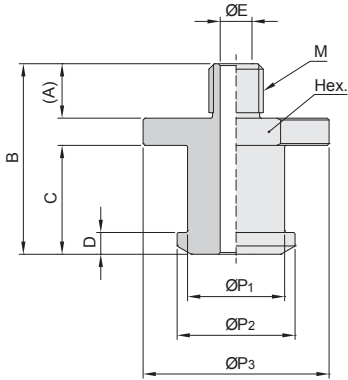


# Vacuum pad / Thin pad type

The vacuum pad specification and type - Thin pad type PAG series

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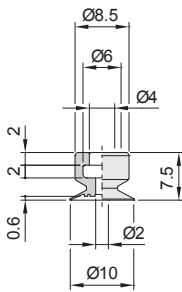
## The joint size



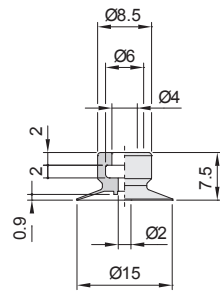
Type	M	A	B	C	D	ØE	ØP <sub>1</sub>	ØP <sub>2</sub>	ØP <sub>3</sub>	Cross Hex.	Weight (g)	Applicable pad size
PAG 20-M6	M6x1	6	21.3	12.5	2	3	7.5	10.3	13	12		Ø20、Ø25
PAG 35-M6	M6x1	6	21.8	12	2.5	3	10.5	13.3	20.5	18		Ø35、Ø50

## Vacuum pad dimensions

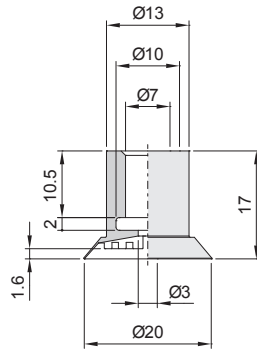
PAG 10



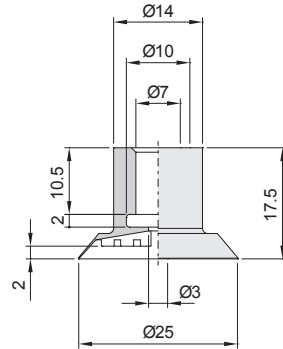
PAG 15



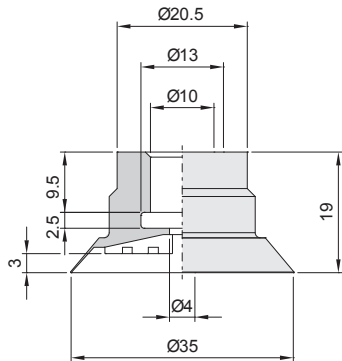
PAG 20



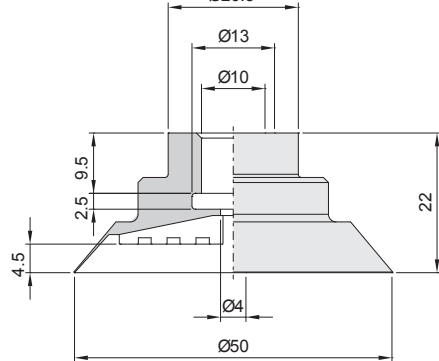
PAG 25

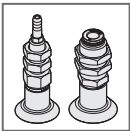


PAG 35



PAG 50



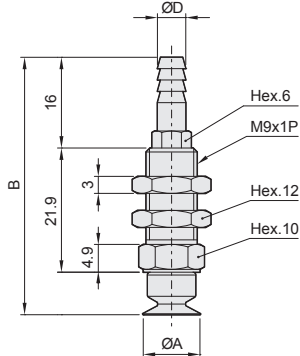


# Vacuum pad / Thin pad type

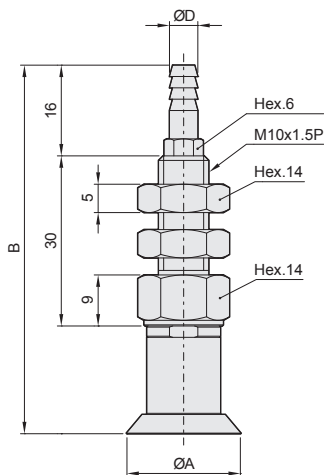
External dimensions - Thin pad type PAGF series Vertical entry /  
PAGK series Vertical with fitting

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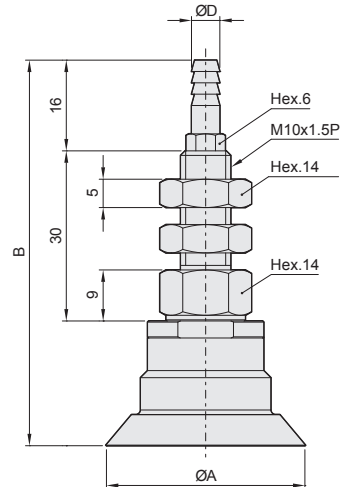
○ PAG **F** - 10, 15



○ PAG **F** - 20, 25



○ PAG **F** - 35, 50



Type	Tube outer dia. x Inner dia. Ø D	Pad dia. Ø A	Whole length B
PAG <b>F</b> - 10	6x4	10	45.4
PAG <b>F</b> - 15	6x4	15	45.4
PAG <b>F</b> - 20	6x4	20	66
PAG <b>F</b> - 25	6x4	25	66.5
PAG <b>F</b> - 35	6x4	35	67
PAG <b>F</b> - 50	6x4	50	72

**PA**  
真空吸盤  
單層型

**PB**  
真空吸盤  
雙層型

**PC**  
真空吸盤  
三層型

**PAG**  
薄型吸盤

**PAO**  
防滑吸盤

**PAW**  
橢圓型吸盤

**PAP**  
平板型吸盤

**PAQ**  
無痕型吸盤

**PAL**  
不迴轉  
真空吸盤

**PBL**  
不迴轉  
真空吸盤

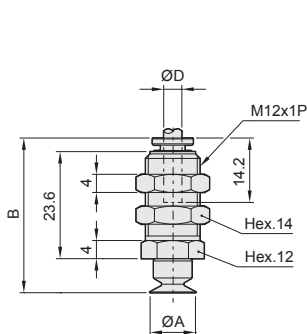
**PCL**  
不迴轉  
真空吸盤

**PAR**  
擺動  
支架組

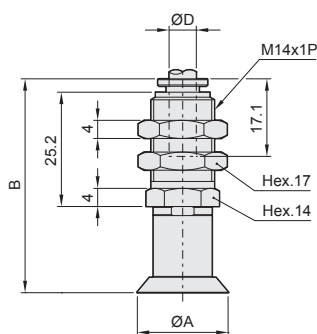
**PS**  
非接觸式  
吸盤

**PS**  
非接觸式  
吸盤

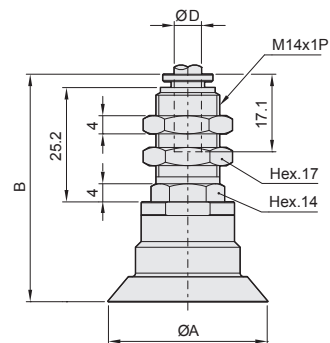
○ PAG **K** - 10, 15



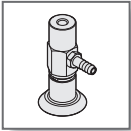
○ PAG **K** - 20, 25



○ PAG **K** - 35, 50



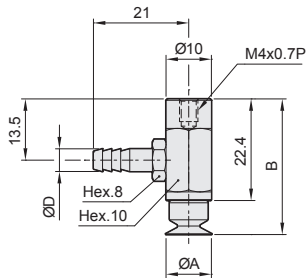
Type	Tube outer dia. Ø D	Pad dia. Ø A	Whole length B
PAG <b>K</b> - 10	4	10	34.1
PAG <b>K</b> - 15	4	15	34.1
PAG <b>K</b> - 20	6	20	48.2
PAG <b>K</b> - 25	6	25	48.7
PAG <b>K</b> - 35	6	35	51.2
PAG <b>K</b> - 50	6	50	54.2



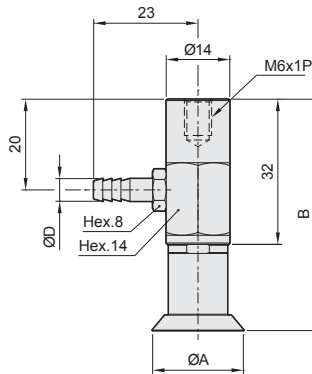
## Vacuum pad / Thin pad type

External dimensions - Thin pad type PAGT series / Side entry **CHELIC**

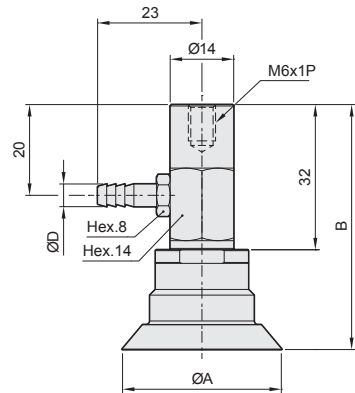
◉ PAG **T** - 05



◉ PAG **T** - 20, 25



◉ PAG **T** - 35, 50



Type	Tube outer dia. x Inner dia. Ø D	Pad dia. Ø A	Whole length B
PAG <b>T</b> - 10	6x4	10	29.9
PAG <b>T</b> - 15	6x4	15	29.9
PAG <b>T</b> - 20	6x4	20	52
PAG <b>T</b> - 25	6x4	25	52.5
PAG <b>T</b> - 35	6x4	35	55
PAG <b>T</b> - 50	6x4	50	68



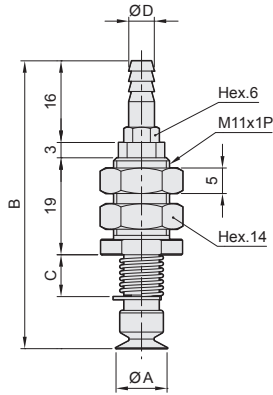
## Vacuum pad / Thin pad type

External dimensions - Thin pad type PAGFS series /  
Vertical entry with spring

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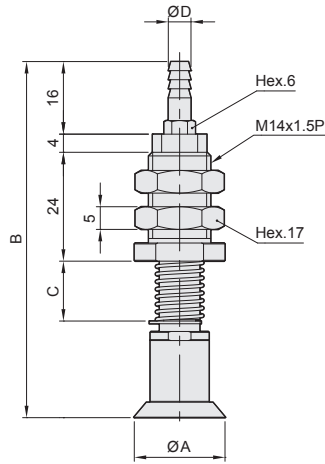
◉ PAG FS - 10, 15 x 04

PAG FS - 10, 15 x 10



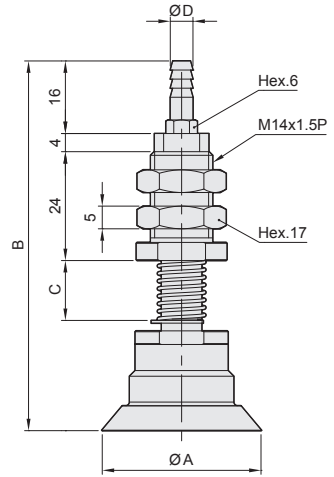
◉ PAG FS - 20, 25 x 06

PAG FS - 20, 25 x 15



◉ PAG FS - 35, 50 x 06

PAG FS - 35, 50 x 15



Type	Tube outer dia. x Inner dia. ØD	Pad dia. ØA	Whole length B	C
PAG FS - 10 x 04	6x4	10	56.4	8
PAG FS - 10 x 10			68.4	20
PAG FS - 15 x 04	6x4	15	56.4	8
PAG FS - 15 x 10			68.4	20
PAG FS - 20 x 06	6x4	20	79.5	12
PAG FS - 20 x 15			96.5	30
PAG FS - 25 x 06	6x4	25	80	12
PAG FS - 25 x 15			97	30
PAG FS - 35 x 06	6x4	35	82.5	12
PAG FS - 35 x 15			99.5	30
PAG FS - 50 x 06	6x4	50	85.5	12
PAG FS - 50 x 15			102.5	30



# Vacuum pad / Thin pad type

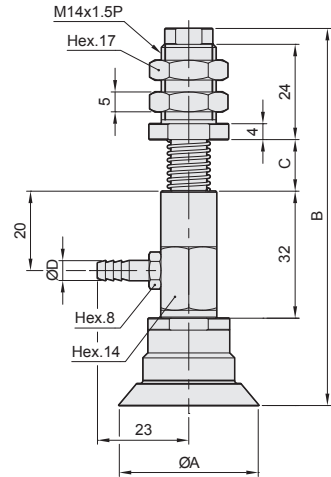
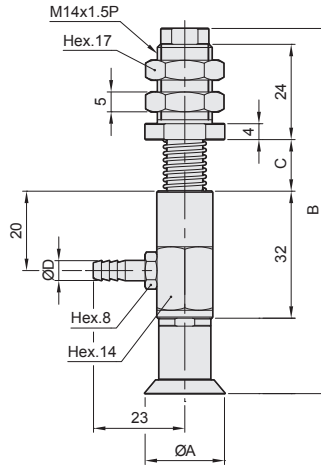
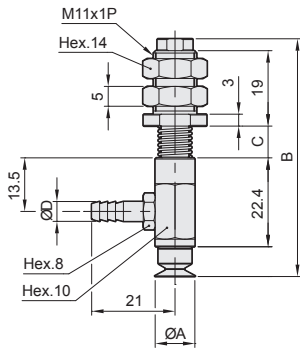
External dimensions - Thin pad type PAGTS series /  
Side entry with spring

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◉ PAG **TS** - 10, 15 x **04**  
 PAG **TS** - 10, 15 x **10**

◉ PAG **TS** - 20, 25 x **06**  
 PAG **TS** - 20, 25 x **15**

◉ PAG **TS** - 35, 50 x **06**  
 PAG **TS** - 35, 50 x **15**



Type	Tube outer dia. x Inner dia. ØD	Pad dia. ØA	Whole length B	C
PAG <b>TS</b> - 10 x <b>04</b>	6x4	10	59.9	8
PAG <b>TS</b> - 10 x <b>10</b>			71.9	20
PAG <b>TS</b> - 15 x <b>04</b>	6x4	15	59.9	8
PAG <b>TS</b> - 15 x <b>10</b>			71.9	20
PAG <b>TS</b> - 20 x <b>06</b>	6x4	20	93	12
PAG <b>TS</b> - 20 x <b>15</b>			110	30
PAG <b>TS</b> - 25 x <b>06</b>	6x4	25	93.5	12
PAG <b>TS</b> - 25 x <b>15</b>			110.5	30
PAG <b>TS</b> - 35 x <b>06</b>	6x4	35	96	12
PAG <b>TS</b> - 35 x <b>15</b>			113	30
PAG <b>TS</b> - 50 x <b>06</b>	6x4	50	96	12
PAG <b>TS</b> - 50 x <b>15</b>			116	30