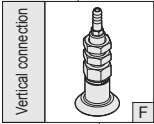


Vacuum pad / Flat type

Specification and Order expression

CHELIC

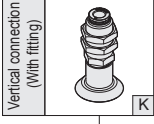
How to order

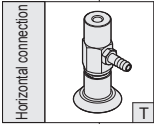
PAP	F	10	x	N	R																																														
Vacuum pad	Bracket	Pad diameter	Stroke	Vacuum pad material	With free holder																																														
PAW series Vacuum pad	Vertical connection  F	<table border="1"> <tr><th>Mark</th><th>Diameter (mm)</th></tr> <tr><td>05</td><td>Ø5</td></tr> <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>30</td><td>Ø30</td></tr> </table>	Mark	Diameter (mm)	05	Ø5	10	Ø10	15	Ø15	20	Ø20	30	Ø30	<table border="1"> <tr><th>Type</th><th>Mark</th><th>Diameter (mm)</th></tr> <tr><td rowspan="2">05</td><td>2.5</td><td>2.5 mm</td></tr> <tr><td>5</td><td>5 mm</td></tr> <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>4</td><td>4 mm</td></tr> <tr><td>10</td><td>10 mm</td></tr> <tr><td rowspan="2">30</td><td>6</td><td>6 mm</td></tr> <tr><td>15</td><td>15 mm</td></tr> </table>	Type	Mark	Diameter (mm)	05	2.5	2.5 mm	5	5 mm	10	4	4 mm	10	10 mm	15	4	4 mm	10	10 mm	20	4	4 mm	10	10 mm	30	6	6 mm	15	15 mm	N: NBR (Black) (Standard) S: (Silicon) Silicon rubber SE: Anti-static rubber (Surface resistance 10 ⁴ ~ 10 ⁶ Ω) E: Low resistance & anti-static rubber (Surface resistance 200Ω)	<table border="1"> <tr><th>Rotary bracket</th><th>Outer dia. (mm)</th></tr> <tr><td>PAR 05</td><td>Ø05~Ø15</td></tr> <tr><td>PAR 20</td><td>Ø20~Ø30</td></tr> </table>	Rotary bracket	Outer dia. (mm)	PAR 05	Ø05~Ø15	PAR 20	Ø20~Ø30
Mark	Diameter (mm)																																																		
05	Ø5																																																		
10	Ø10																																																		
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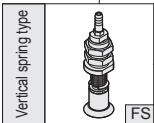
Note: PPAK without 05 (Ø5)

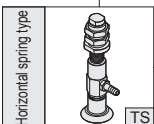
Note: SE, E Customized

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)  K

Horizontal connection  T

Vertical spring type  FS

Horizontal spring type  TS

Vacuum pad material

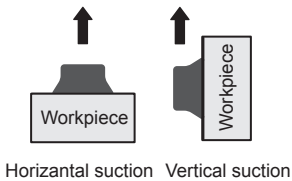
Mark	Material	Hardness (HS)	Ambient and fluid temperature	Color	Surface resistance(Note)
N	NBR(Rubber)	A55/S	-26~120°C	Black	-
S	Silicon, Silicon rubber	A55/S	-60~250°C	White	-
SE	Anti-static rubber	A50/S	-60~250°C	Black	10 ⁴ ~10 ⁶ ·cm
E	Low resistance & anti-static rubber	A70/S	-60~250°C	Black	200Ω ·cm

Note: 1. Rubber conductive type means each cm³ has resistance.
 2. It is the output value according to ours testing object.

Calculation formula

Suction type

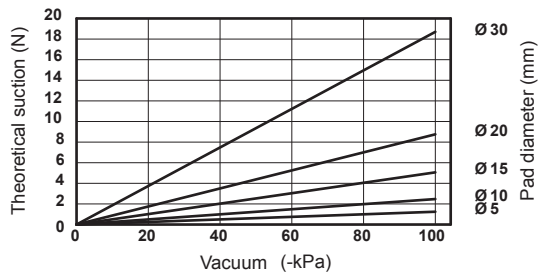
Calculation formula

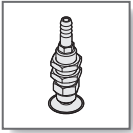


$$W = \frac{P \times A}{-10}$$

W : Force N
 P : Vacuum pressure kPa
 A : Pad area cm²

Theoretical suction



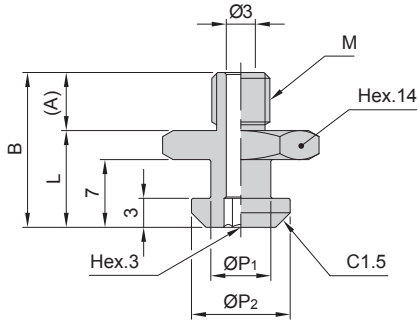


Vacuum pad / Flat type

The vacuum pad specification and type - Flat PAP series

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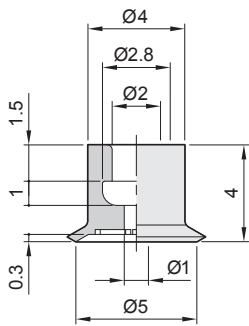
● The joint size



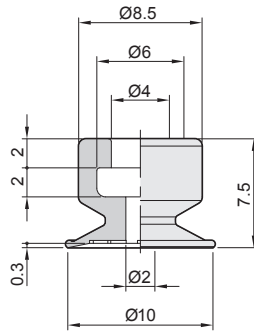
Type	M	A	B	L	$\varnothing P_1$	$\varnothing P_2$	Weight (g)	Applicable pad size
PAP 30-M6	M6x1	5.8	16.8	11	6.2	10.3		$\varnothing 30$

● Vacuum pad size

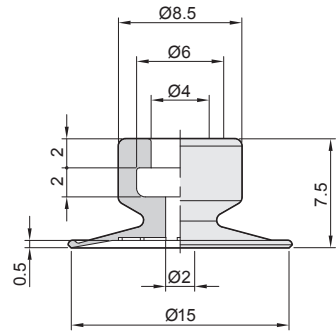
● PAP 05



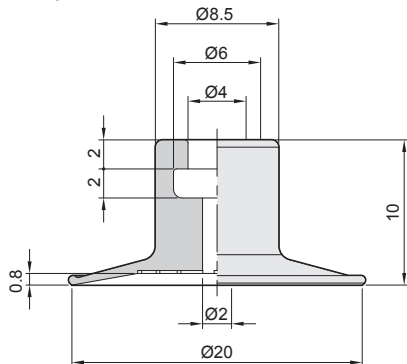
● PAP 10



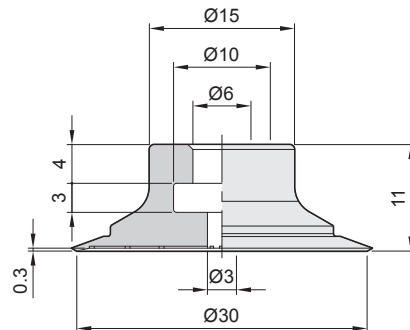
● PAP 15



● PAP 20



● PAP 30



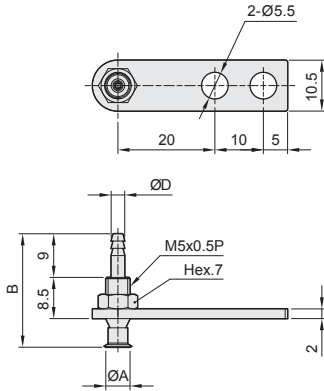


Vacuum pad / Oval type

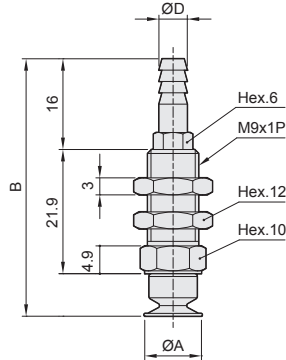
External dimensions - Flat PAPF series /
Vertical entry, PAPK series - with fitting

CHELIC

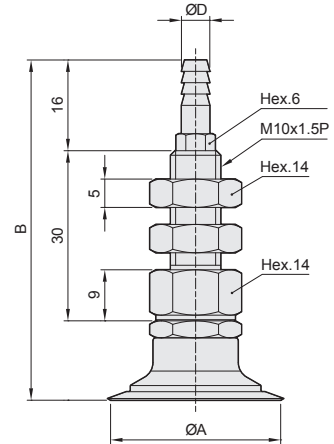
◉ PAP **F** - 05



◉ PAP **F** - 10, 15, 20

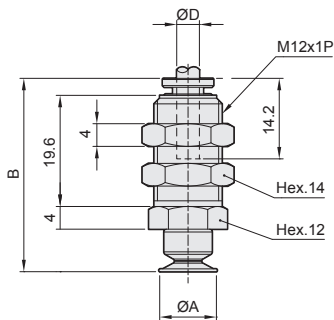


◉ PAP **F** - 30

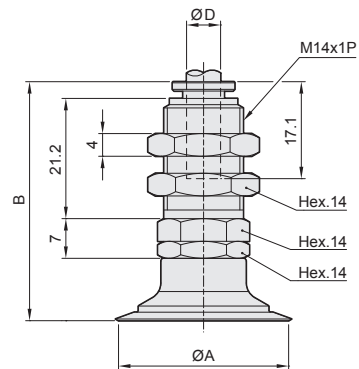


Type	Tube outer dia. x Inner dia. ØD	Pad dia. ØA	Whole length B
PAP F - 05	4x2.5	5	23.4
PAP F - 10	6x4	10	45.4
PAP F - 15	6x4	15	45.4
PAP F - 20	6x4	20	47.9
PAP F - 30	6x4	30	61

◉ PAP **K** - 10, 15, 20



◉ PAP **K** - 30



Type	Tube outer dia. x Inner dia. ØD	Pad dia. ØA	Whole length B
PAP K - 10	4	10	29.9
PAP K - 15	6	15	29.9
PAP K - 20	6	20	32.4
PAP K - 30	6	30	47



Vacuum pad / Oval type

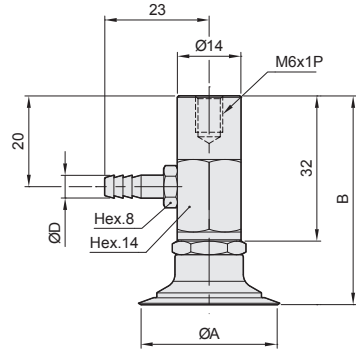
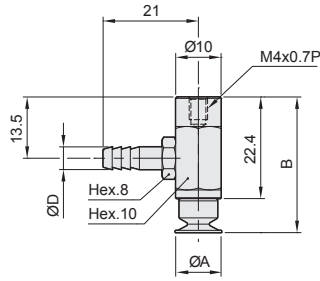
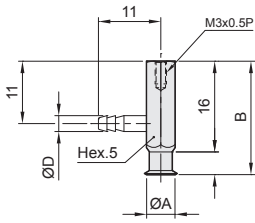
External dimensions - Flat PAPT series / Side entry

CHELIC

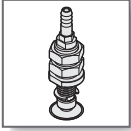
○ PAPT - 05

○ PAPT - 10, 15, 20

○ PAPT - 30



Type	Tube outer dia.x Inner dia. ØD	Pad dia. ØA	Whole length B
PAPT - 5	3x2	5	20
PAPT - 10	6x4	10	29.9
PAPT - 15	6x4	15	29.9
PAPT - 20	6x4	20	32.4
PAPT - 30	6x4	30	47



Vacuum pad / Oval type

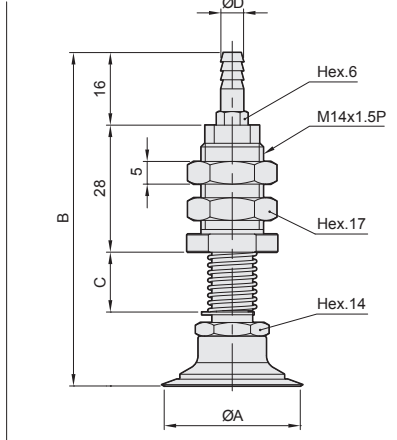
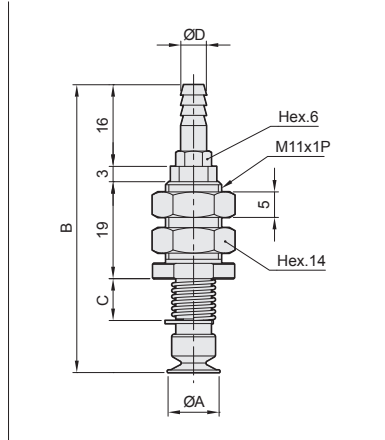
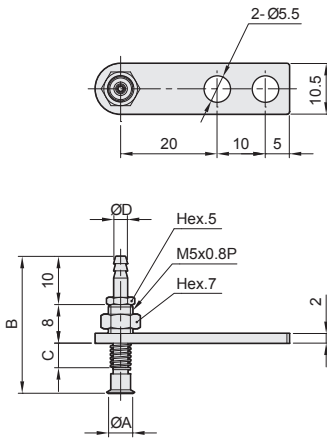
External dimensions - Flat PAPFS series /
Vertical entry with spring

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◉ PAP **FS** - 05 x **2.5**
 PAP **FS** - 05 x **5**

◉ PAP **FS** - 10, 15, 20 x **04**
 PAP **FS** - 10, 15, 20 x **10**

◉ PAP **FS** - 30 x **06**
 PAP **FS** - 30 x **15**



Type	Tube outer dia.x Inner dia. ØD	Pad dia. ØA	Whole length B	C
PAP FS - 05 x 2.5	4x2.5	5	28.4	5
PAP FS - 05 x 5			33.4	10
PAP FS - 10 x 04	6x4	10	56.4	8
PAP FS - 10 x 15			68.4	20
PAP FS - 15 x 04	6x4	15	56.4	8
PAP FS - 15 x 10			68.4	20
PAP FS - 20 x 04	6x4	20	58.9	8
PAP FS - 20 x 10			70.9	20
PAP FS - 30 x 06	6x4	30	74.5	12
PAP FS - 30 x 15			91.5	30



Vacuum pad / Oval type

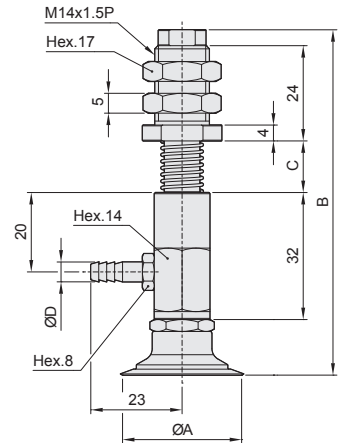
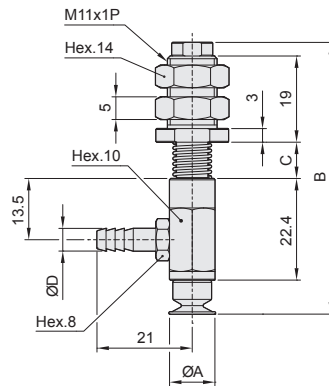
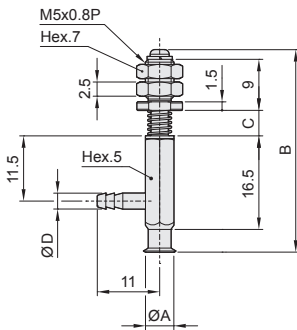
External dimensions - Flat PAPFS series /
Side entry with spring

CHELIC

◉ PAPER TS - 05 x 2.5
 PAPER TS - 05 x 5

◉ PAPER TS - 10, 15, 20 x 04
 PAPER TS - 10, 15, 20 x 10

◉ PAPER TS - 30 x 06
 PAPER TS - 30 x 15



Type	Tube outer dia.x Inner dia. ØD	Pad dia. ØA	Whole length B	C
PAPER TS - 05 x 2.5	3x2	5	35.7	4.5
PAPER TS - 05 x 5			40.7	9.5
PAPER TS - 10 x 04	6x4	10	59.9	8
PAPER TS - 10 x 10			71.9	20
PAPER TS - 15 x 04	6x4	15	59.9	8
PAPER TS - 15 x 10			71.9	20
PAPER TS - 20 x 04	6x4	20	62.4	8
PAPER TS - 20 x 10			74.4	20
PAPER TS - 30 x 06	6x4	30	88	13
PAPER TS - 30 x 15			105	30