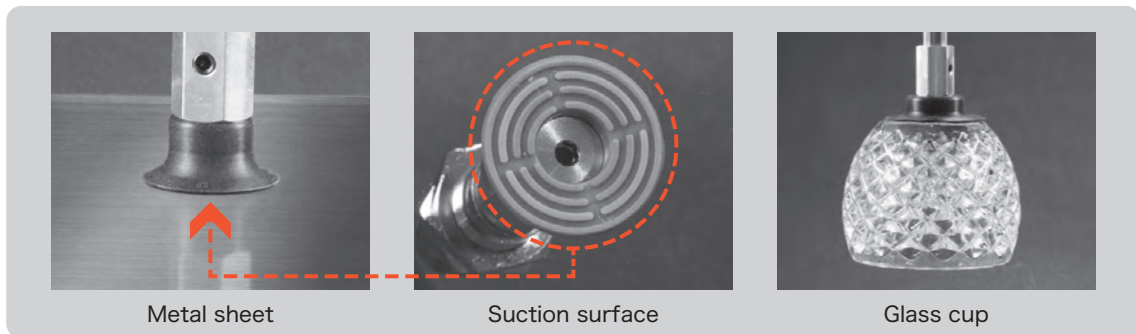


Flat Cup with Oil Grooves



Flat type cup with oil grooves.
For workpieces with smooth and even surfaces,
the workpiece which has an oil film in the surface !



Metal sheet

Suction surface

Glass cup

Wide range of cup sizes.

- φ20
- φ25
- φ30
- φ35
- φ40

Various fittings for many kinds of applications.




Fixed fitting



Spring fitting

- PA
- PB
- PC
- PCD
- PD
- PF
- PFO**
- PH
- PJ
- CORE
- PK2
- PK2B
- PK2L
- PL
- PN
- PN-B
- PP
- PQ
- PR
- PU
- PW
- RA
- SM
- TN

Suction Cup

 <p>PFOG</p>	<p>Cup size (mm) φ 20 ~ 40</p>		<p>P.311</p>
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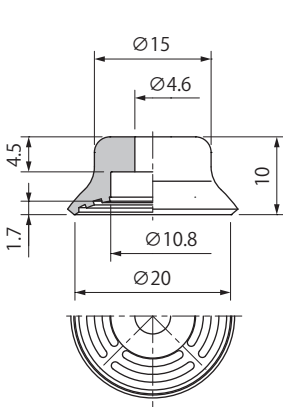
Fitting

Type	Applicable cup size (mm)	Stroke (mm)	Vacuum port	Piping · Connector	Page
<p>Cup with fixed fitting PFOTK</p> 	<p>φ 20 ~ 40</p>	<p>N/A</p>	<p>Top</p>	<p>Barb</p>	<p>P.313</p>
<p>Cup with fixed fitting PFOYK</p> 	<p>φ 20 ~ 40</p>	<p>N/A</p>	<p>Side</p>	<p>Barb</p>	<p>P.313</p>
<p>Cup with spring fitting NAPFOTS</p> 	<p>φ 20 ~ 40</p>	<p>6, 15, 30</p>	<p>Top</p>	<p>Female screw Push-in Barb</p>	<p>P.315</p>
<p>Cup with spring fitting NAPFOYS</p> 	<p>φ 20 ~ 40</p>	<p>6, 15, 30</p>	<p>Side</p>	<p>Female screw Push-in Barb</p>	<p>P.315</p>
<p>Cup with non-rotation spring fitting NAPFOTH</p> 	<p>φ 20 ~ 40</p>	<p>6, 15, 30</p>	<p>Top</p>	<p>Female screw Push-in Barb</p>	<p>P.319</p>
<p>Cup with non-rotation spring fitting NAPFOYH</p> 	<p>φ 20 ~ 40</p>	<p>6, 15, 30</p>	<p>Side</p>	<p>Female screw Push-in Barb</p>	<p>P.319</p>
<p>Setting screw</p> 	<p>φ 20 ~ 40</p>	<p>—</p>	<p>—</p>	<p>—</p>	<p>P.503</p>

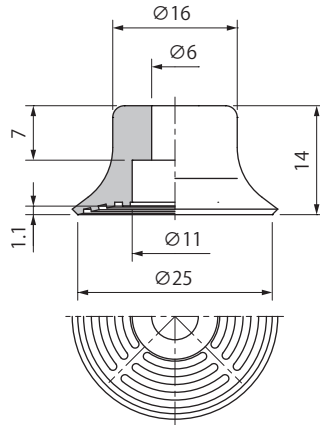
Dimensions

(mm)

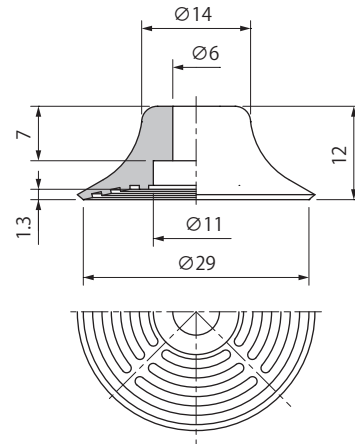
PFOG-20



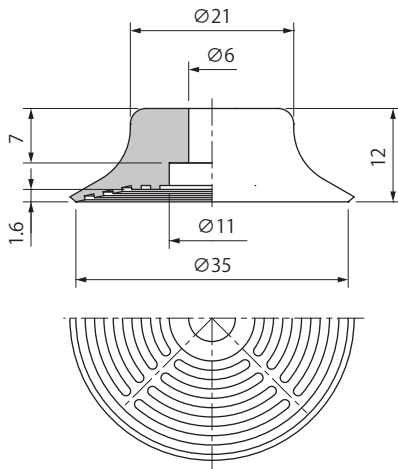
PFOG-25



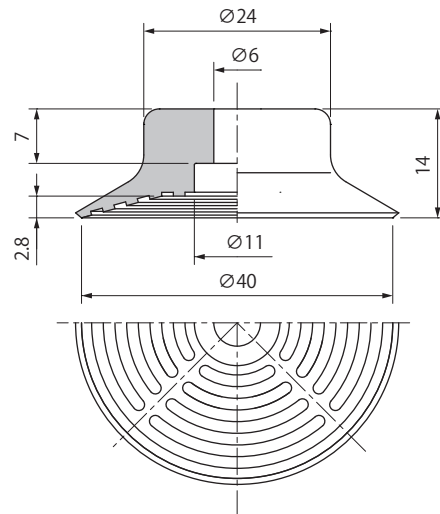
PFOG-30



PFOG-35



PFOG-40



Weight

(g)

Model \ Material	N	S	Applicable setting screw (Screw specifications)
PFOG-20	1.6	1.6	TN-PF-20-M5 (Male M5X0.8)
PFOG-25	3.0	3.0	
PFOG-30	2.9	2.9	TN-PF-25-M6 (Male M6X1.0)
PFOG-35	5.2	5.2	
PFOG-40	7.3	7.3	

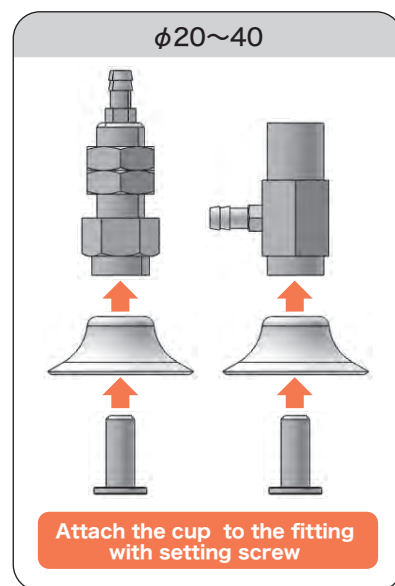
※Please refer to P.503 for setting screw detailed specifications.

PFOTK·YK Cup with Fixed Fitting

Suction Cup
Flat Cup with Oil Grooves



Consisting of fitting, setting screw, suction cup.



How to Order

PFO **T** K - **30** - **N**

① Vacuum Port

T	Top
Y	Side

② Cup Size (mm)

Symbol	Cup size
20	φ 20
25	φ 25
30	φ 30
35	φ 35
40	φ 40

③ Cup Rubber Material

Symbol	Material
N	NBR(Nitrile rubber)
S	Silicone rubber

※ Please consult with us for other material.

Combination Table

Top Port

Model number	Cup	Setting screw	Fitting	Piping specifications	
PFOTK-20-□	PFOG-20-□	TN-PF-20-M5	PFTK-15-K	Barb	φ 6X4
PFOTK-25-□	PFOG-25-□	TN-PF-25-M6	PFTK-25-K		
PFOTK-30-□	PFOG-30-□				
PFOTK-35-□	PFOG-35-□				
PFOTK-40-□	PFOG-40-□				

※□ in the table indicates the cup material.

Side Port

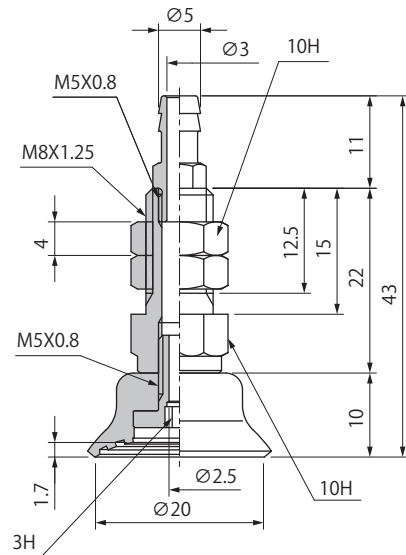
Model number	Cup	Setting screw	Fitting	Piping specifications	
PFOYK-20-□	PFOG-20-□	TN-PF-20-M5	PFYK-15-K	Barb	φ 6X4
PFOYK-25-□	PFOG-25-□	TN-PF-25-M6	PFYK-25-K		
PFOYK-30-□	PFOG-30-□				
PFOYK-35-□	PFOG-35-□				
PFOYK-40-□	PFOG-40-□				

※□ in the table indicates the cup material.

Dimensions

(mm)

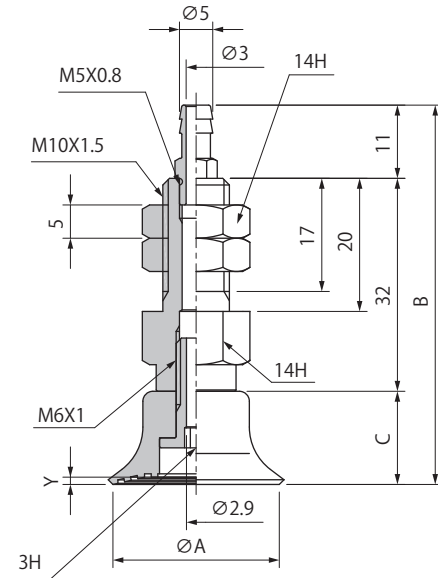
Top Port /PFOTK-20



Model number	Weight (g)
PFOTK-20-□	20

※□ in the table indicates the cup material.
※ The weight value is when NBR (Nitrile rubber) selected.

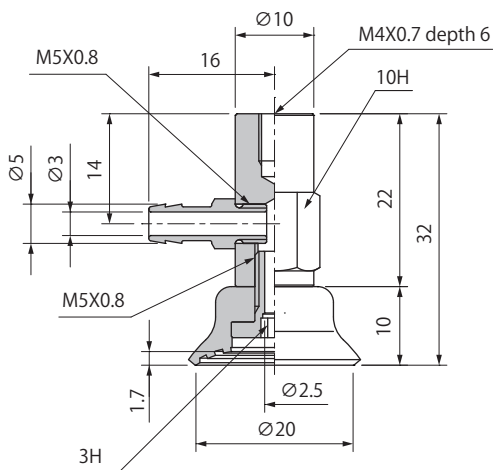
Top Port /PFOTK-25/30/35/40



Model number	A	B	C	Y	Weight (g)
PFOTK-25-□	25	57	14	1.1	41
PFOTK-30-□	29	55	12	1.3	
PFOTK-35-□	35		1.6		
PFOTK-40-□	40	57	14	2.8	

※□ in the table indicates the cup material.
※ The weight value is when NBR (Nitrile rubber) selected.

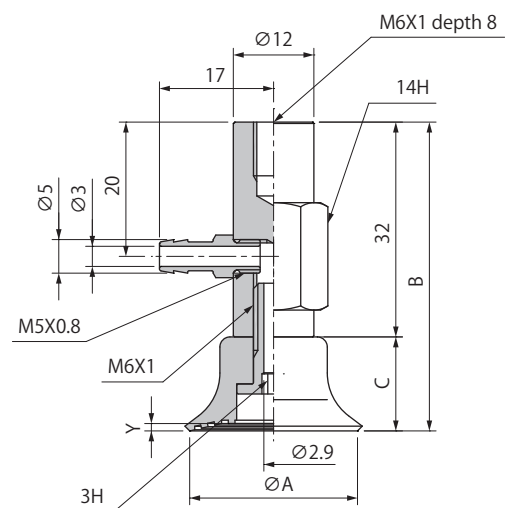
Side Port /PFOYK-20



Model number	Weight (g)
PFOYK-20-□	20

※□ in the table indicates the cup material.
※ The weight value is when NBR (Nitrile rubber) selected.

Side Port /PFOYK-25/30/35/40



Model number	A	B	C	Y	Weight (g)
PFOYK-25-□	25	46	14	1.1	41
PFOYK-30-□	29	44	12	1.3	
PFOYK-35-□	35		1.6		
PFOYK-40-□	40	46	14	2.8	

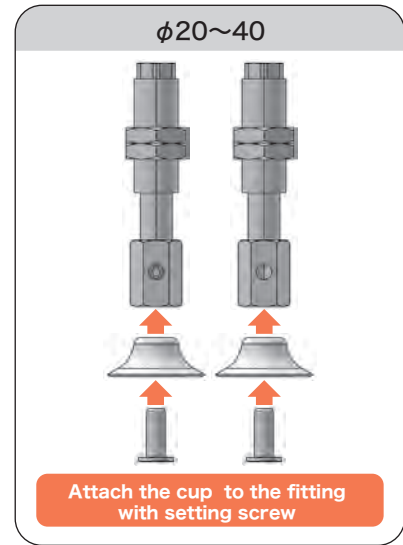
※□ in the table indicates the cup material.
※ The weight value is when NBR (Nitrile rubber) selected.

NAPFOTS·YS Cup with Spring Fitting

Suction Cup
Flat Cup with Oil Grooves



Consisting of fitting, setting screw, suction cup.



02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

SM

TN

How to Order

NAPFO **T** **S** - **20-6** - **N** - **T**

① Vacuum Port

T	Top
Y	Side

② Cup Size - Stroke (mm)

Symbol	Cup size Stroke	Symbol	Cup size Stroke
20-6	φ20-6	35-6	φ35-6
20-15	φ20-15	35-15	φ35-15
20-30	φ20-30	35-30	φ35-30
25-6	φ25-6	40-6	φ40-6
25-15	φ25-15	40-15	φ40-15
25-30	φ25-30	40-30	φ40-30
30-6	φ30-6		
30-15	φ30-15		
30-30	φ30-30		

③ Cup Rubber Material

Symbol	Material
N	NBR (Nitrile rubber)
S	Silicone rubber

※ Please consult with us for other material.

④ Connector

Blank	N/A
T	Barb
O	Push-in

Spring Specifications

Cup size	Unit	φ20~40		
Stroke	mm	6	15	30
Spring load at 0 stroke	N	2.45		2.9
Spring load at full stroke	N	3.43	4.9	5.88

Combination Table

Model number	Cup	Setting screw	Fitting	Piping specifications		
				Without connector · blank	Barb connector · T	Push-in connector · O
NAPFO○S-20-6-□ (-T/O)	PFOG-20-□	TN-PF-20-M5	NAPB○S-20-6-K (-T/O)	M5X0.8 (Female)	φ 6 X 4	
NAPFO○S-20-15-□ (-T/O)			NAPB○S-20-15-K (-T/O)			
NAPFO○S-20-30-□ (-T/O)			NAPB○S-20-30-K (-T/O)			
NAPFO○S-25-6-□ (-T/O)	PFOG-25-□	TN-PF-25-M6	NAPF○S-20B-6-K (-T/O)			
NAPFO○S-25-15-□ (-T/O)			NAPF○S-20B-15-K (-T/O)			
NAPFO○S-25-30-□ (-T/O)			NAPF○S-20B-30-K (-T/O)			
NAPFO○S-30-6-□ (-T/O)	PFOG-30-□	TN-PF-25-M6	NAPF○S-20B-6-K (-T/O)			
NAPFO○S-30-15-□ (-T/O)			NAPF○S-20B-15-K (-T/O)			
NAPFO○S-30-30-□ (-T/O)			NAPF○S-20B-30-K (-T/O)			
NAPFO○S-35-6-□ (-T/O)	PFOG-35-□	TN-PF-25-M6	NAPF○S-20B-6-K (-T/O)			
NAPFO○S-35-15-□ (-T/O)			NAPF○S-20B-15-K (-T/O)			
NAPFO○S-35-30-□ (-T/O)			NAPF○S-20B-30-K (-T/O)			
NAPFO○S-40-6-□ (-T/O)	PFOG-40-□	TN-PF-25-M6	NAPF○S-20B-6-K (-T/O)			
NAPFO○S-40-15-□ (-T/O)			NAPF○S-20B-15-K (-T/O)			
NAPFO○S-40-30-□ (-T/O)			NAPF○S-20B-30-K (-T/O)			

※□ in the table indicates the cup material.

※○ in the table indicates the vacuum port (T or Y).

02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

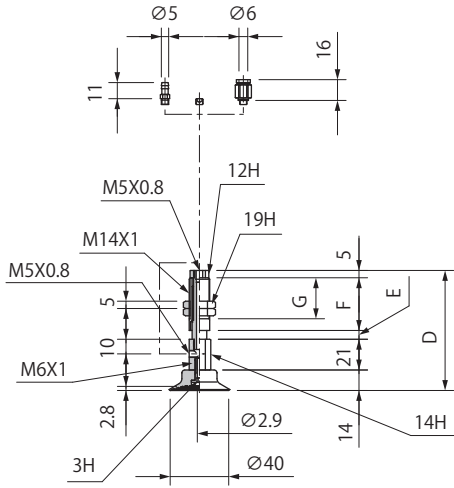
SM

TN

Dimensions

(mm)

NAPFOT/YS-40



Model number	D	E	F	G	Weight (g)
NAPFOT/YS-40-6-□ (-T/O)	82	6	36	28	70.5
NAPFOT/YS-40-15-□ (-T/O)	91	15			75.5
NAPFOT/YS-40-30-□ (-T/O)	128	30	58	50	100.5

※□ in the table indicates the cup material.

※ The weight value is when NBR (Nitrile rubber) / without connector selected.

02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

SM

TN

Common Specifications

Connector Weight(g)

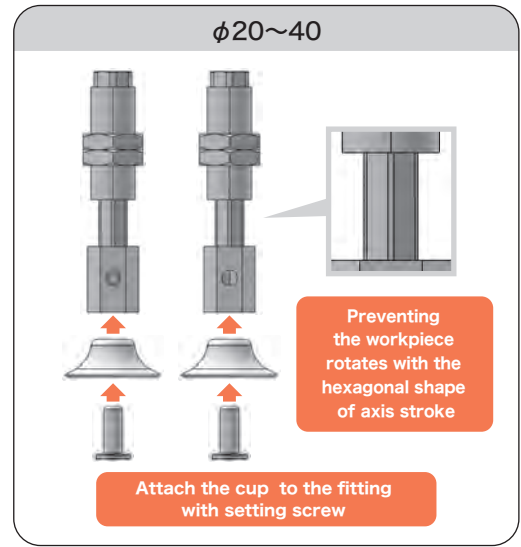
Symbol	Tube O.D φ 6
T	1.5
O	4.0

NAPFOTH·YH Cup with Non-rotation Spring Fitting

Suction Cup
Flat Cup with Oil Grooves



Consisting of fitting, setting screw, suction cup.



02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

SM

TN

How to Order

NAPFO T **H** - 20-6 - **N** - T

① Vacuum port

T	Top
Y	Side

② Cup Size - Stroke (mm)

Symbol	Cup size Stroke	Symbol	Cup size Stroke
20-6	$\phi 20-6$	35-6	$\phi 35-6$
20-15	$\phi 20-15$	35-15	$\phi 35-15$
20-30	$\phi 20-30$	35-30	$\phi 35-30$
25-6	$\phi 25-6$	40-6	$\phi 40-6$
25-15	$\phi 25-15$	40-15	$\phi 40-15$
25-30	$\phi 25-30$	40-30	$\phi 40-30$
30-6	$\phi 30-6$		
30-15	$\phi 30-15$		
30-30	$\phi 30-30$		

③ Cup Rubber Material

Symbol	Material
N	NBR(Nitrile rubber)
S	Silicone rubber

※ Please consult with us for other material.

④ Connector

Blank	N/A
T	Barb
O	Push-in

Spring Specifications

Cup size	Unit	φ20~40		
Stroke	mm	6	15	30
Spring load at 0 stroke	N	2.45		2.9
Spring load at full stroke	N	3.43	4.9	5.88

Combination Table

Model number	Cup	Setting screw	Fitting	Piping specifications		
				Without connector · Blank	Barb connector · T	Push-in connector · O
NAPFO○H-20-6-□ (-T/O)	PFOG-20-□	TN-PF-20-M5	NAPBOH-20-6-K (-T/O)	M5X0.8 (Female)	φ 6 X 4	
NAPFO○H-20-15-□ (-T/O)			NAPBOH-20-15-K (-T/O)			
NAPFO○H-20-30-□ (-T/O)			NAPBOH-20-30-K (-T/O)			
NAPFO○H-25-6-□ (-T/O)	PFOG-25-□	TN-PF-25-M6	NAPFOH-20B-6-K (-T/O)			
NAPFO○H-25-15-□ (-T/O)			NAPFOH-20B-15-K (-T/O)			
NAPFO○H-25-30-□ (-T/O)			NAPFOH-20B-30-K (-T/O)			
NAPFO○H-30-6-□ (-T/O)	PFOG-30-□	TN-PF-25-M6	NAPFOH-20B-6-K (-T/O)			
NAPFO○H-30-15-□ (-T/O)			NAPFOH-20B-15-K (-T/O)			
NAPFO○H-30-30-□ (-T/O)			NAPFOH-20B-30-K (-T/O)			
NAPFO○H-35-6-□ (-T/O)	PFOG-35-□	TN-PF-25-M6	NAPFOH-20B-6-K (-T/O)			
NAPFO○H-35-15-□ (-T/O)			NAPFOH-20B-15-K (-T/O)			
NAPFO○H-35-30-□ (-T/O)			NAPFOH-20B-30-K (-T/O)			
NAPFO○H-40-6-□ (-T/O)	PFOG-40-□	TN-PF-25-M6	NAPFOH-20B-6-K (-T/O)			
NAPFO○H-40-15-□ (-T/O)			NAPFOH-20B-15-K (-T/O)			
NAPFO○H-40-30-□ (-T/O)			NAPFOH-20B-30-K (-T/O)			

※□ in the table indicates the cup material.

※○ in the table indicates the vacuum port (T or Y).

02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

SM

TN

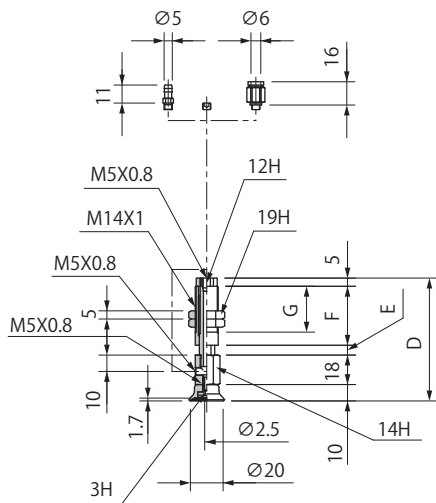
NAPFOTH·YH Cup with Non-rotation Spring Fitting

Suction Cup Flat Cup with Oil Grooves

Dimensions

(mm)

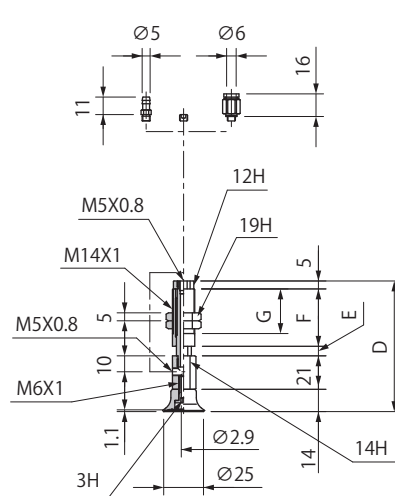
NAPFOT/YH-20



Model number	D	E	F	G	Weight (g)
NAPFOT/YH-20-6-□ (-T/O)	75	6	36	28	64.5
NAPFOT/YH-20-15-□ (-T/O)	84	15			69.5
NAPFOT/YH-20-30-□ (-T/O)	121	30	58	50	93.5

※□ in the table indicates the cup material.
 ※ The weight value is when NBR (Nitrile rubber) / without connector selected.

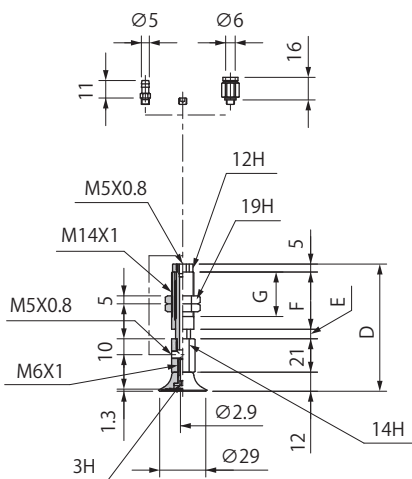
NAPFOT/YH-25



Model number	D	E	F	G	Weight (g)
NAPFOT/YH-25-6-□ (-T/O)	82	6	36	28	64.5
NAPFOT/YH-25-15-□ (-T/O)	91	15			69.5
NAPFOT/YH-25-30-□ (-T/O)	128	30	58	50	93.5

※□ in the table indicates the cup material.
 ※ The weight value is when NBR (Nitrile rubber) / without connector selected.

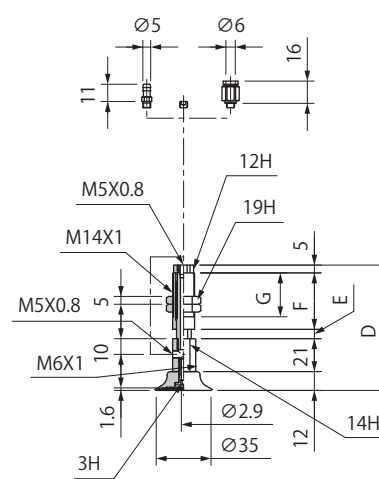
NAPFOT/YH-30



Model number	D	E	F	G	Weight (g)
NAPFOT/YH-30-6-□ (-T/O)	80	6	36	28	65
NAPFOT/YH-30-15-□ (-T/O)	89	15			70
NAPFOT/YH-30-30-□ (-T/O)	126	30	58	50	94

※□ in the table indicates the cup material.
 ※ The weight value is when NBR (Nitrile rubber) / without connector selected.

NAPFOT/YH-35



Model number	D	E	F	G	Weight (g)
NAPFOT/YH-35-6-□ (-T/O)	80	6	36	28	67
NAPFOT/YH-35-15-□ (-T/O)	89	15			72
NAPFOT/YH-35-30-□ (-T/O)	126	30	58	50	96

※□ in the table indicates the cup material.
 ※ The weight value is when NBR (Nitrile rubber) / without connector selected.

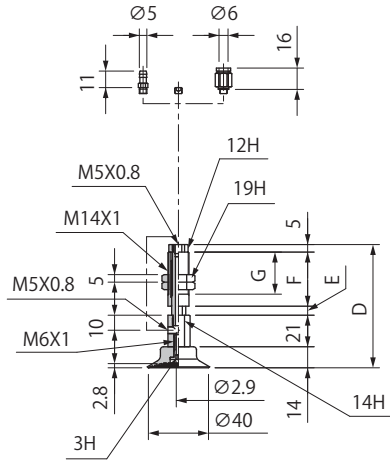
Common Specifications

Connector Weight(g)	
Symbol	Tube O.D φ 6
T	1.5
O	4.0

Dimensions

(mm)

NAPFOT/YH-40



Model number	D	E	F	G	Weight (g)
NAPFOT/YH-40-6-□ (-T/O)	82	6	36	28	69
NAPFOT/YH-40-15-□ (-T/O)	91	15			74
NAPFOT/YH-40-30-□ (-T/O)	128	30	58	50	98

※□ in the table indicates the cup material.

※ The weight value is when NBR (Nitrile rubber) / without connector selected.

02

Suction Cup

PA

PB

PC

PCD

PD

PF

PFO

PH

PJ

CORE

PK2

PK2B

PK2L

PL

PN

PN-B

PP

PQ

PR

PU

PW

RA

SM

TN

Common Specifications

Connector Weight(g)

Symbol	Tube O.D φ 6
T	1.5
O	4.0