

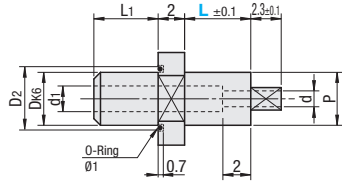
# Holders for Mini Suction Cups / Mini Suction Cups

Note that, for some of the types shown here, order might be unable to be received by the MISUMI Indonesia offices.

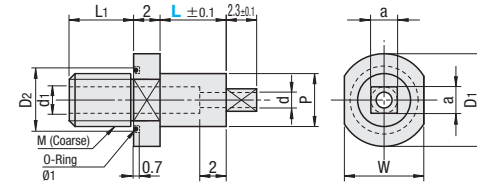
# Vacuum Pens / Vacuum Attachments

## Holders for Mini Suction Cup

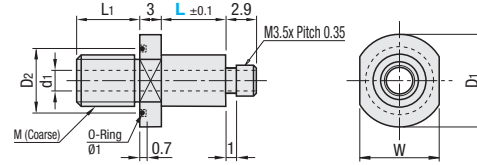
### MHLD (Press Fit)



### MHLDM (Threaded)



### MHLDK (Threaded)



MHLDK can be used with Vacuum Attachments in P1444.

Material: Body: SUS303  
O-Ring NBR (JIS B2401 Class 1 A)

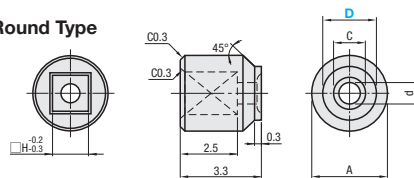
Part Number	L Selection	Tolerance	M Coarse	Dk6	P	d	d1	L1	D1	D2	W	MHLD		MHLDM		MHLDK		
												Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	
MHLD	1.7	1.7 0	M5	5	5	1.2	2	6	9	7	8	10-20	10-20	10-20	-	-	-	-
MHLDM	2.7	2.7 -0.03	M6	6	6	2.3	3	8	10	8	9	-	-	-	-	-	-	-
MHLDK	5	-	M5	-	5	-	2	6	9	7	8	-	-	-	-	-	-	-
	15	-	M6	-	6	-	2	8	10	8	9	-	-	-	-	-	-	-

Ordering Example: Part Number - L  
MHLD1.7 - 10

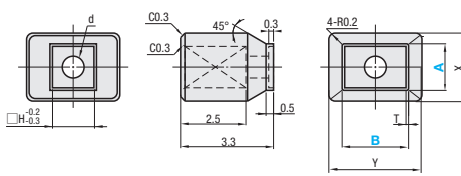
## Mini Suction Cups

Type	Material	Hardness	Heat Resistance Temp.	Volume Specific Resistance
Round Type	Nitrile Rubber (Black)	Shore A80	-20~150°C	1.0x10 <sup>10</sup> · cm
Square Type	Silicon Rubber (Black)	Shore A60	-70~200°C	1.0x10 <sup>10</sup> · cm

### Round Type



### Square Type

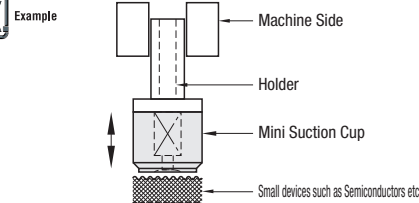


Part Number	D	C	A	d	H	Applicable Holder	Unit Price
<Round Type>							
RBTR	1	-	-	0.5	1.7	MHLDM	
SCTR	1.25	-	-	0.5	1.7	MHLDM	
	1.5	0.9	4	1	2.7	MHLDM	
	1.75	1.2	4	1	2.7	MHLDM	
	2	1.4	4	1	2.7	MHLDM	
	2.5	1.9	5	1	2.7	MHLDM	
	3	2.3	5	1	2.7	MHLDM	
	4	3.2	5	1	2.7	MHLDM	
	5	4.2	7	1	2.7	MHLDM	
	6	4.9	7	1	2.7	MHLDM	
	7	5.9	7	1	2.7	MHLDM	

Part Number	A	B	X	Y	T	d	H	Applicable Holder	Unit Price
<Square Type>									
RBTS	2	4	4	6	0.4	1	1.7	MHLDM	
SCTS	2.5	5	4	7	0.4	1	1.7	MHLDM	
	3	6	5	9	0.5	1	2.7	MHLDM	
	4	8	6	10.5	0.5	1	2.7	MHLDM	
	5	10	6.5	12.5	0.5	1	2.7	MHLDM	
	6	12	7.5	14.5	0.5	1	2.7	MHLDM	
	7	14	7.5	14.5	0.5	1	2.7	MHLDM	

The photo is enlarged.

Ordering Example: Part Number - B  
RBTR2 - 5



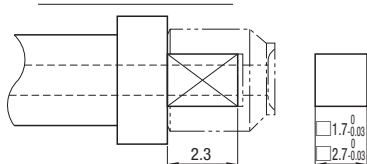
## Features

- Makes no scratch on devices.
- Easy replacement by commonizing the holder insert part.
- Devices can surely be sucked and detached.

The applicable tip type of Mini Suction Cup must be selected in accordance with the size and shape of the current object device. For the mating holder insertion part, however, only 2 types are offered and are commonized to enable easy insertion and replacement of Mini Suction Cup tips.

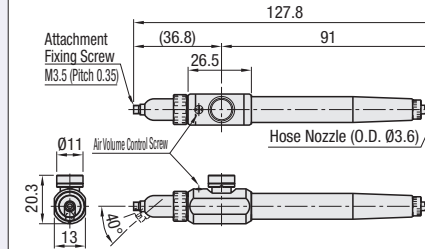
To suck, apply air pressure.  
To remove, stop the air pressure.  
The surface of the suction portion of the mini suction cups is treated with satin finish, providing easy device removal. The material of RBTR and RBTS is NBR (Nitrile Rubber) and can suck (convey) devices without making scratch on them. The material of SCTR and SCTS is silicon rubber and excels in chemical, heat, low temperature and weather resistance.

## Holder End Machining Guide

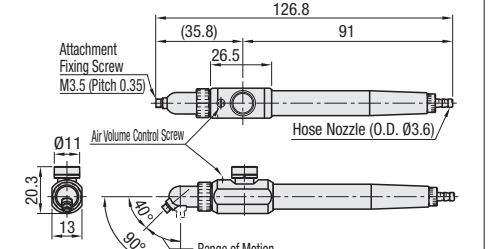


## Vacuum Pens

### MKPEN (0 ~ 40° Bent)



### MKPEL (40 ~ 90° Bent)



Part Number	Applicable Tube I.D.	Accessory	MKPEN	MKPEL
MKPEN	3	Ø3 Silicon Tube L=1m	Unit Price 1~2 pc(s)	Unit Price 1~2 pc(s)
MKPEL			Volume Discount Rate 3~10	Volume Discount Rate 3~10

Features: Press the button lightly to suck and release it to detach.  
Suction/Attachment can be controlled smoothly by using the air volume control function.  
The air flow rate can be changed by adjusting the thread according to weight and size of sucking objects.

## Vacuum Attachments - Chip Type

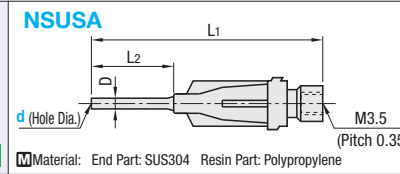


Type	Material	Surface Treatment	Heat Resistance Temp.	Electrical Resistance
NICR	Low Cadmium Brass	Nickel / Chrome Plating	200°C	-
NIFE	PTFE (Teflon)	-	260°C	10 <sup>10</sup> Ω
NIKE	Conductive PEEK	-	250°C	10 <sup>9</sup> Ω

Features: Brass: Low cost and heat resistant.  
Teflon: Since the material is soft, the product is very little likely to damage the sucking workpiece and is excellent in chemical resistance.  
Conductive PEEK: Convenient in handling small electronic parts that require static protection.

Please use in combination with Holder for Mini Suction Cup Tip Male Thread (MHLDK P1443) and Vacuum Pen (MKPEN, MKPEL).

## Vacuum Attachments - Fine Type

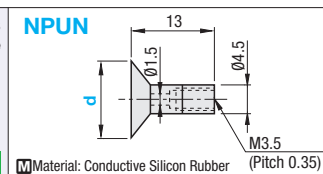


Part Number	d	D	L1	L2	Unit Price	Volume Discount Rate
NSUSA	0.10	0.23	29.35	6.35	1~9 pc(s)	10~20
	0.15	0.3				
	0.20	0.41				
	0.33	0.64				
	0.51	0.81	35.7	12.7		
	0.84	1.27				
	1.37	1.65				
	1.52	1.83				

Part Number	d	NICR	NIFE	NIKE
NICR	0.3	Unit Price 1~9 pc(s)	Unit Price 10~20	Unit Price 1~9 pc(s)
NIFE	0.4	Volume Discount Rate 10~20	Volume Discount Rate 10~20	Volume Discount Rate 10~20
NIKE	0.5			
	0.6			
	0.7			
	0.8			
	1.0			
	1.2			
	1.5			
	2.0			
	2.5			
	3.0			
	3.5			
	4.0			

d3.5 is not available for NIKE.

## Vacuum Attachments - Conductive Rubber Suction Type



Ordering Example: Part Number  
MKPEN  
NICR0.3

Part Number	Unit Price	Volume Discount Rate
NPUN	Unit Price 1~9 pc(s)	Volume Discount Rate 10~20

Example

