

# NPC Series

## Pin Clamp Cylinder

Bore size : Ø50, Ø63



- Clamping and positioning at the same time
- Adjustable clamping height
- Scraper option is available

### How to order

**NPC** **P** **H** **63** **S** **C** — **249** **A** **A** — **60** — **W2P** **S**

1 2 3 4 5 6 7 8 9 10 11 12

#### 1 New Pin Clamp Cylinder

#### 2 Magnet type

Blank : Standard magnet  
P : Strong magnet

#### 3 Guide pin direction

V : Vertical (Ø50, Ø63)  
H : Horizontal (Ø63)

#### 4 Bore size

50 : 50mm  
63 : 63mm

#### 5 Acting / Stroke(mm)

Bore	Pin	Acting	Stroke	Symbol
Ø50	V	Double	18mm	D
Ø63	V	Double	18mm	D
		Single	11mm	S
	H	Single	11mm	S

#### 6 Anti-spatter option

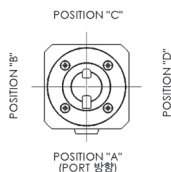
Blank: None (Standard)  
C : Scraper  
※ Scraper is not available with H type

#### 7 Guide pin dimension

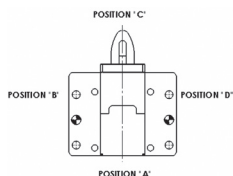
229 : Ø22.9  
※ Only available with V type  
249 : Ø24.9

#### 8 Clamp / Port direction

For V type  
A, B, C, D : Clamping direction  
※ Port direction is fixed on "A"



For H type  
A, B, C, D : Port direction  
※ Pin direction is fixed on "C"



#### 9 Mounting direction

A, B, C, D : Mounting direction (Refer to clamping direction)  
※ "A" side is only available for H type

#### 10 Height

Ø50-Double : 60, 80, 85  
Ø63-Double : 60, 75, 85  
Ø63-Single : 25, 35, 60, 75, 85  
※ Mounting direction is different for 25, and 35  
Ø63-Horizontal(single) : 60, 75, 85  
※ Contact us for other dimensions

#### 11 Auto switch

Blank: None  
W2P : Solid state auto switch  
P74RL : Reed auto switch  
※ For strong magnet

#### 12 Number of switches

Blank: 2 pcs  
S : 1 pc  
n : n pcs

# Pin Clamp Cylinder NPC Series

## Specification

Bore (mm)	50	63		
Type	Non-lube type			
Pin direction	Vertical	Vertical	Vertical	Horizontal
Acting	Double	Double	Single	
Fluid	Air			
Proof pressure	1.5MPa			
Max. operating pressure	1.0MPa			
Min. operating pressure	0.10MPa	0.10MPa	※ 0.45MPa	
Ambient and fluid temperature	Without auto switch: -10°C~70°C (without freezing)			
	With auto switch : -10°C~60°C (without freezing)			
Cushion	Without cushion			
Installation	4 * M10x1.5 thread			
Pison speed	50~500m/s		50~300m/s	

※ For single acting type, please be careful on selection since its min. operating pressure is higher than double type

## Operating stroke / Standard height

Bore (mm)	Pin direction	Acting	Clamping stroke	Cylinder stroke	Standard height(mm)
Ø50	Vertical(V)	Double (D)	11mm	18mm	60, 80, 85
Ø63	Vertical(V)	Double (D)	11mm	18mm	60, 75, 85
	Vertical(V)	Single (S)	7mm	11mm	25, 35, 60, 75, 85
	Horizontal(H)	Single (S)	7mm	11mm	60, 75, 85

※ Ø63 - Standard height(25/35) for vertical/Single type have different mounting dimensions, so please refer to its drawing before selection.

## Dimensions

Bore	Pin	Acting	Standard height	Weight(kg)	Bore	Pin	Acting	Standard height	Weight(kg)
Ø50	Vertical	Double	60	3.1	Ø63	Vertical	Single	25	3.9
			80	3.2				35	4.0
			85	3.3				60	4.4
Ø63	Vertical	Double	60	3.5				75	4.5
			75	3.6				85	4.6
			85	3.7		Horizontal	Single	60	4.6
								75	4.7
								80	4.8

## Theoretical clamping force [ N ]

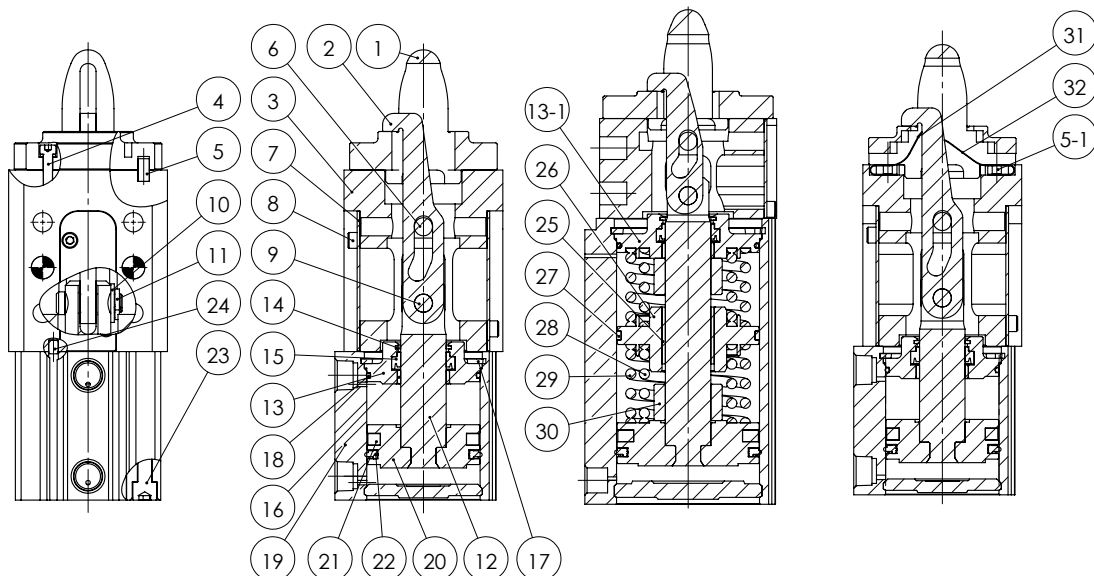
Bore (mm)	Pin	Acting	Operating pressure (MPa)								
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Ø50	V	Double	165	330	495	660	825	990	1150	1315	1480
Ø63	V	Double	282	562	841	1121	1400	1679	1960	2239	2518
	V	Single	910								
	H	Single	910								

## Structure / Parts list [ Vertical - Double/Single acting]

※ Ø50 / Ø63 V/D type

※ Ø63 V/S typ

※ Anti spatter type

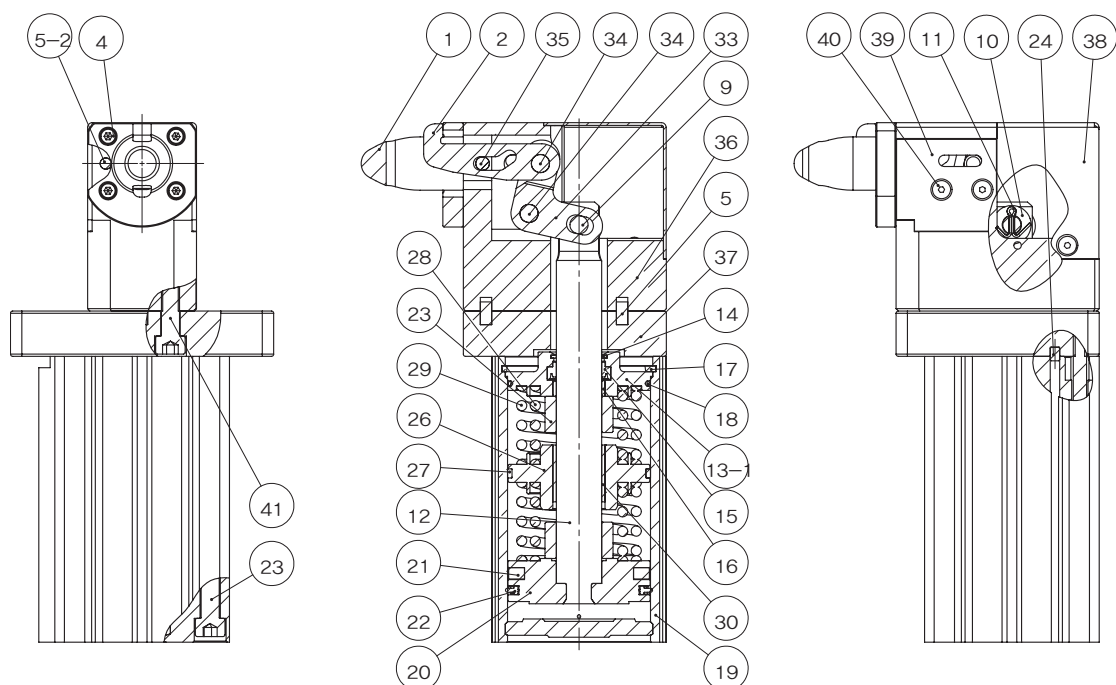


### Parts list

NO	Item	Material	Remark	NO	Item	Material	Remark
1	GUIDE PIN	Alloy tool steel		16	DU BUSH	Copper alloy	
2	CLAMP LEVER	Carbon steel	Special surface treatment	17	SNAP RING	Carbon tool steel	
3	BODY	Carbon steel		18	O-ring	NBR	
4	Hexagonal bolt	Carbon steel		19	CYLINDER TUBE	Aluminum alloy	Anodizing
5	Dowel pin	Carbon steel	Anti-spatter type	19-1			
5-1				20	PISTON	Aluminum alloy	
5-2				21	MAGNET RING	NBR+Ba Ferrite	
6	PIN	Bearing steel		22	PISTON PACKING	NBR	
7	COVER	Stainless steel		23	Hexagonal bolt	Carbon steel	
8	Hexagonal bolt	Carbon steel		24	Dowel pin	Stainless steel	
9	HINGE PIN A	Bearing steel		25	DU BUSH	Copper alloy	
10	PLAIN WASHER	Carbon tool steel		26	SPRING GUIDE	Aluminum alloy	
11	Dividing pin	Carbon steel		27	Wiper ring	Plastic	
12	PISTON ROD	Carbon steel	Hard chromium plating	28	SPRING A	Spring steel	
13	ROD COVER	Aluminum alloy	Anodizing	29	SPRING B	Spring steel	
13-1				30	SPACER	Aluminum alloy	
14	METAL SCRAPER	Copper alloy		31	SCRAPER A	Spring steel	Anti-spatter type
15	ROD PACKING	NBR		32	SCRAPER B	Spring steel	Anti-spatter type

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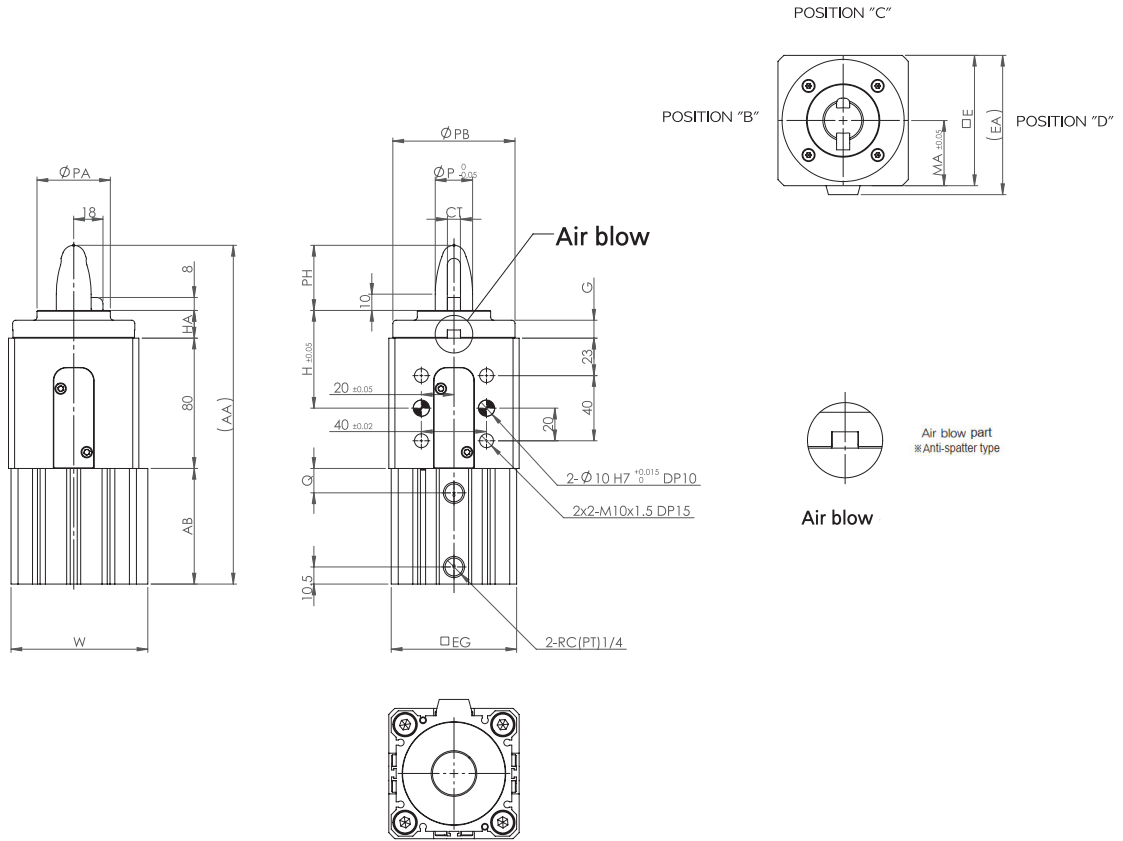
## Structure / Parts list [ Horizontal - Single acting]



### Parts list

NO	Item	Material	Remark
33	LINK	Carbon steel	
34	PIN A	Bearing steel	
35	PIN B	Bearing steel	
36	GUIDE BODY	Aluminum alloy	
37	MIDDLE PLATE	Carbon steel	
38	COVER	Carbon steel	
39	SIDE COVER	Stainless steel alloy	
40	Cross head bolt	Carbon steel	
41	Hexagonal bolt	Carbon steel	

## Vertical - Double acting type



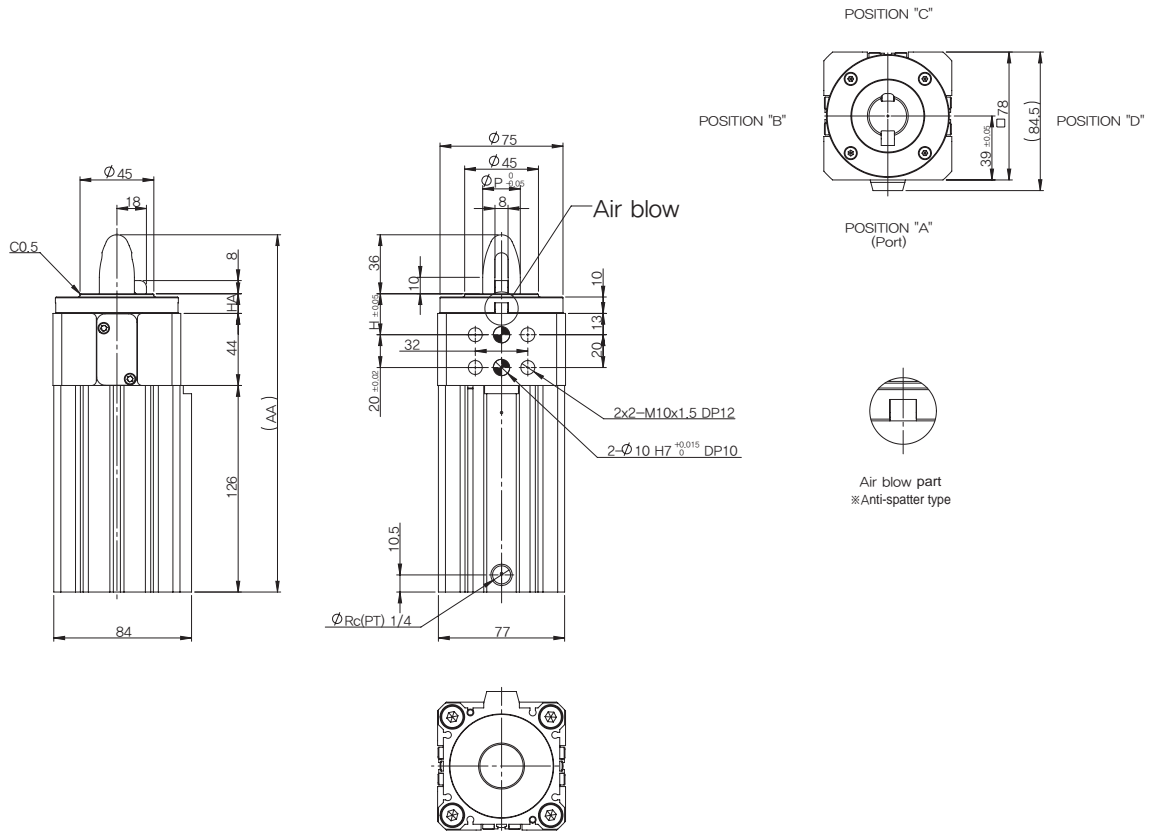
Bore	P	H	AB	AA	Q	EG	W	PH	PA	PB	HA	G	CT	MA	E	EA
Ø50	22.9	60	65.5	198.5	10.5	64	71	36	40	65	17	12	7	35	70	74
		80		218.5							37					
		85		223.5							42					
	24.9	60		198.5							17					
		80		218.5							37					
		85		223.5							42					
		60		208							17					
		75		223							32					
Ø63	22.9	60	71	208	15	77	84	40	45	75	17	11	8	40	80	85.5
		75		223							32					
		85		233							42					
	24.9	60		208							17					
		75		223							32					
		85		233							42					
		60		208							17					
		75		223							32					

※ Above drawing is anti-spatter type with clamping position in AA direction. (Dimensions are same as standard type)

※ Air blow part is only available with anti-spatter type

# Pin Clamp Cylinder NPC Series

## Vertical - Single acting type [H25 / H35]



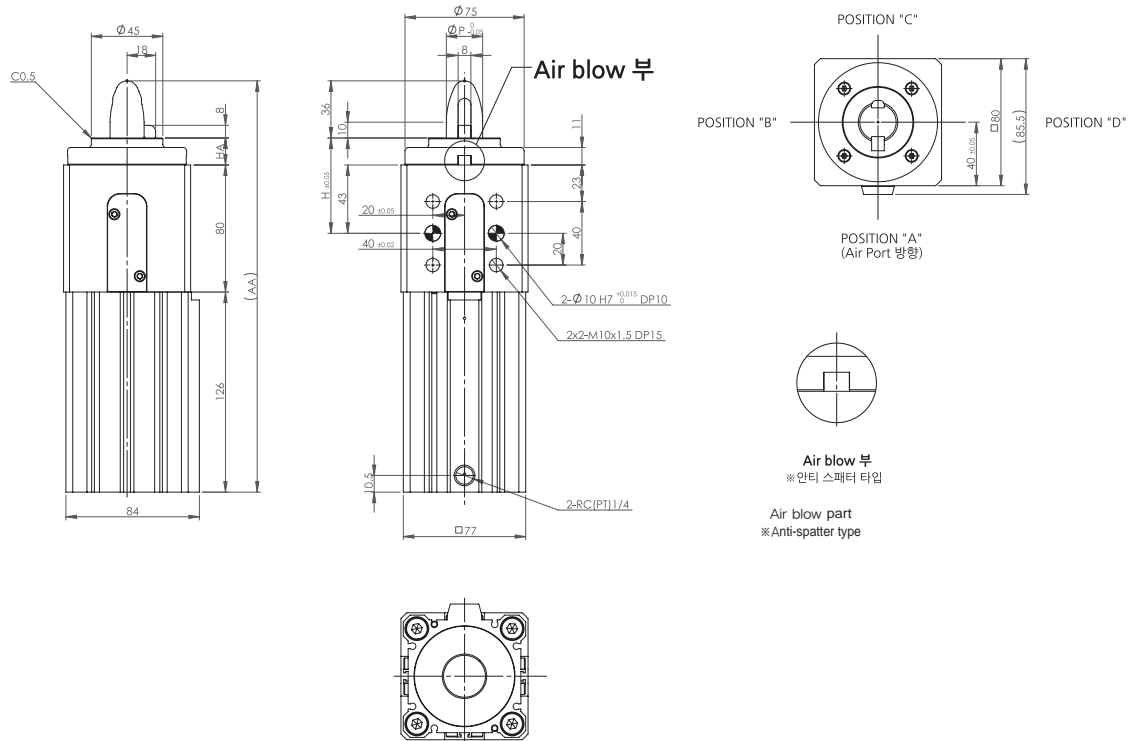
Bore	P	H	AA	HA
Ø63	22.9	25	218	12
		35	228	22
	24.9	25	218	12
		35	228	22

※ Above drawing is anti-spatter type with clamping position in AA direction. (Dimensions are same as standard type)

※ Air blow part is only available with anti-spatter type

# NPC Series

## Vertical - Single acting type [H60 / H75 / H85]

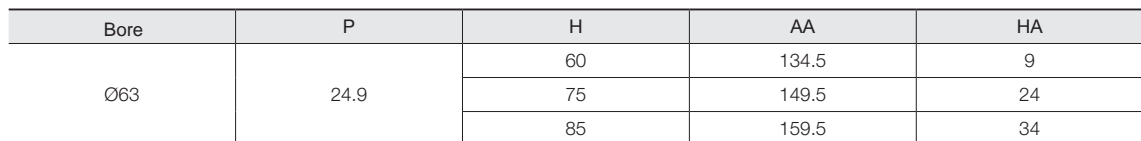


Bore	P	H	AA	HA
Ø63	22.9	60	259	17
		75	274	32
		85	284	42
Ø63	24.9	60	259	17
		75	274	32
		85	284	42

※ Above drawing is anti-spatter type with clamping position in AA direction. (Dimensions are same as standard type)

※ Air blow part is only available with anti-spatter type

## Horizontal - Single acting type [H60 / H75 / H85]



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