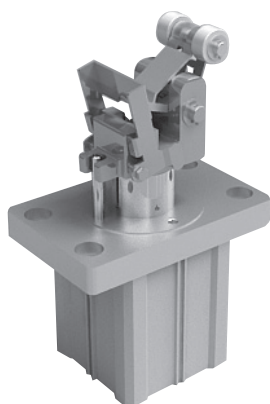


# Series **NST**

## Stopper Cylinder

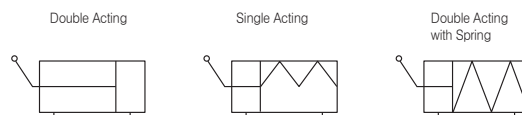
Bore Size(mm) : Ø50, Ø63, Ø80



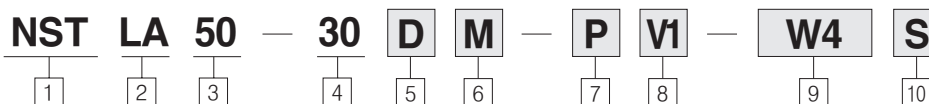
PAT

- IT IS POSSIBLE TO CHANGE THE ROTATION OF THE ACTUATOR BY 360 DEGREES WITH STEPS OF 90°
- SHOCK ABSORBER PRE-INSTALLED FOR EASY SETUP
- AUTO SWITCH CAPABLE
- SINGLE ACTION, DOUBLE ACTION, DOUBLE ACTION WITH SPRING EXTEND AVAILABLE

### Symbol



### How to Order



1 NST: New Stopper Cylinder

2 LA : Lever / Standard  
LB : Lever / Rod Cover Slim Type(Only  $\phi$  50 Available)  
LC : Lever / Rod Cover Quadrable Type(Only  $\phi$  50 Available)

3 Bore Size(mm)

50 :  $\phi$  50  
63 :  $\phi$  63  
80 :  $\phi$  80

4 Stroke(mm)

$\phi$  50 : 25, 30, 40  
 $\phi$  63 : 30, 40  
 $\phi$  80 : 30, 40

5 Action

Blank : Single Acting  
D : Double Acting  
Z : Double Acting with Spring

6 Roller

Blank : MC Nylon  
M : Rolled steel(SPA material)

7 Lever Lock

Blank : None  
S : Pallet Stop  
P : Pallet Pass  
SP : Pallet Stop, Pass  
R : Opposite Direction, Unlock Function  
(Lever lock function, pass pin attached)  
\* Only  $\phi$  80 available

8 Valve

Blank : None  
V1 : AC 100V  
V2 : AC 220V  
V5 : DC 24V

9 Auto Switch

Blank : None  
W4 : Reed Auto Switch  
W8H/W8V : Reed auto switch (horizontal type/vertical type)

Caution :

1. According to the leading direction of the existing plug point or non plug point auto switch, it is separated into horizontal/vertical types.
2. When the lead line length is 3m add an L to the end number of the product.  
ex) W8H:W8HL
3. W4, W8H(V):Multiple use of DC24V, AC110V/ Multiple use of W9H(V):DC24V

10 Number of Auto Switches

Blank : 2 pcs  
S : 1 pc  
N : N pcs

## Series NST

### Specifications

Action	Double Acting, Single Acting, Double Acting with Spring
Fluid	Air
Proof pressure	1.5MPa(213psi)
Max. operating pressure	1MPa(142psi)
Min. operating pressure	Double Acting : MPa
	Single Acting : MPa
Ambient and fluid temperature	-5~70°C
Lubrication	Not Required
Cushion	Rubber Cushion
Stroke Length Tolerance	$^{+1.4}_0$
Mounting type	Thru hole (standard), Both ends tapped
Auto Switch	Attachable

### Specifications

Bore Size	Standard Stroke(mm)
φ 50	25, 30, 40
φ 63, φ 80	30, 40

### Specifications

Tube Bore Size(mm)	ROD Size(mm)
φ 50	32
φ 63	40
φ 80	50

### Specifications

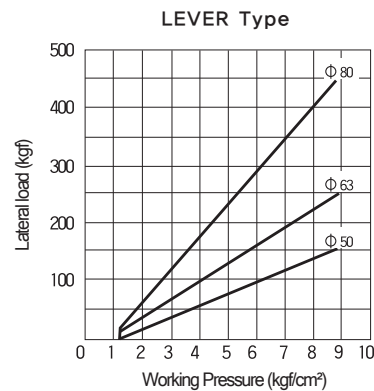
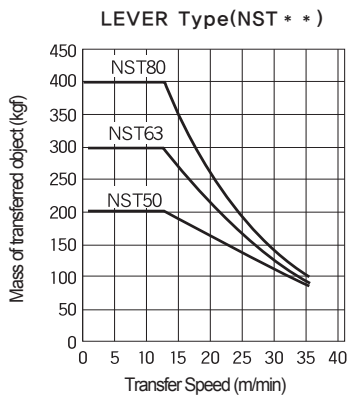
Pressure(Kgf/cm <sup>2</sup> ) Bore Size(mm)	Pressure(Kgf/cm <sup>2</sup> )						
	1.2	2	3	4	5	6	7
φ 50	5	30	40	70	95	120	150
φ 63	15	40	75	120	150	180	225
φ 80	20	60	110	160	200	240	280

### Weight

(Unit : g)

Bore Size(mm)	Stroke(mm)		
	25	30	40
50(Standard)	2,135	2,178	2,263
50(slim)	2,151	2,194	-
63	-	3,998	4,134
80	-	5,528	5,808

## Stopper Cylinder Selection Process



### ⚠️ Precaution

Please be fully aware before using  
Please read the notice(Page 36) for safety.

### Selection

- When lever is in standing up position, do not make collision with pallet.
- when lever is in standing up position in shock absorber's inner lever type, in case pallet collides with it, energy is absorbed to the cylinder body, therefore, don't make collision happen.
- Please make sure no not to scratch the Connection parts.
- piston rod is not hardened, so damage can be occurred if connection part of pallet is sharp. In case of this, do not use. It causes non-function.

- When stopping temporarily loay which is be absorbed to cylinder in Stopper cylinder.
- Within the range of usage of CAT. Just use when stopping the pallet.
- In case of stopping the stopper cylinder, if the cylinder impellent force becomes horizontally lowered, please contact us.

### Mounting

- Do not give the rotation torque to cylinder rod.
- Contact area of cylinder should be parallel to contact area of pallet in order not to cause rotation torque on the cylinder rod.

### Operation

- Do not make outside force after lever locking when attaching a lever type lock device.
- When adjusting conveyor, move after pull down the cylinder.
- Do not use the oil at the connection area of piston rod.
- Oil causes non-function.
- Please be careful with hands and clothing during operation.

### Repair and inspection

When replacing the shock absorber, please fix the shock absorber well with fixing bolt.

## STOPPER CYLINDER Selection Process

1. From the crossing point of the maximum weight of the returned product and speed we select the size of the cylinder and damper model.
2. Through the friction calculation of the conveyor roller and pallet we bring out the constant horizontal weight.  
(Constant horizontal weight = Returned product weight × Friction calculation)
3. Set up the user pressure and select the cylinder size.

### Application example

※ Condition used = Conveyor speed : 14m/min, Returned product total weight : 230kgf, Pressure used : 5kgf/cm<sup>2</sup>, Friction calculation number : 0.1

### ※ Selection method

- Select the damper model and cylinder size  
LB(strong type) damper, 50 size cylinder
- Find the constant horizontal weight

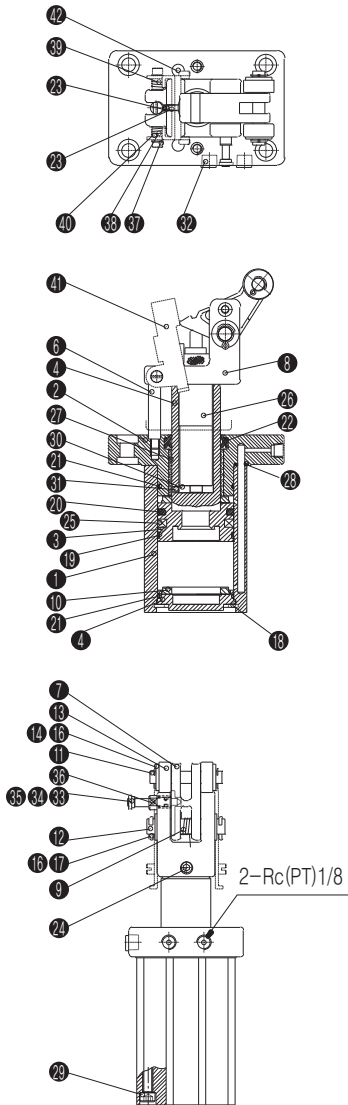
Returned product weight × Friction calculation number = 230kgf×0.1=23(kgf)

The 50size cylinder is selected on the crossing point of the pressure used at 5kgf/cm<sup>2</sup>, and at the constant horizontal weight of 23kgf

# Series NST

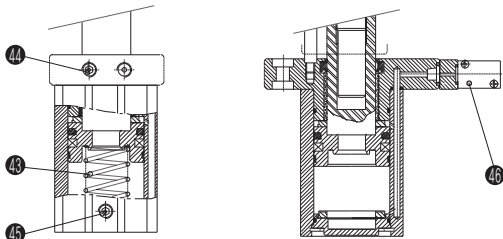
## Basic Type : Construction/Parts List

AMRBL  $\phi$  50, 63



■ Single Acting : ※T  
 ■ Single Acting : ※Z  
 /Built-in spring

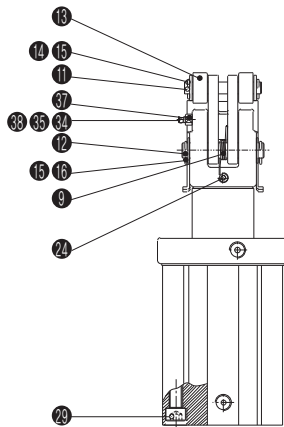
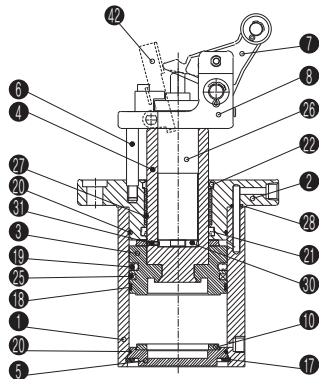
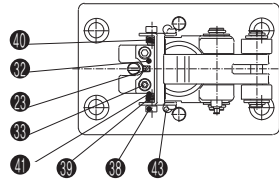
■ V/V Type : ※Z-V※



No.	Description	Material		Note
1	Tube	Aluminum alloy	1	
2	Rod Cover	Aluminum alloy	1	
3	Piston	Aluminum alloy	1	
4	Piston Rod	Carbon Steel	1	
5	Head Cover	Aluminum alloy	1	
6	Guide Rod	Carbon Steel	1	
7	Lever	Carbon Steel	1	
8	Holder	Carbon Steel	1	
9	Lever Spring	Spring Steel	1	
10	Bumper	NBR	2	Head, Rod
11	Roller Pin	Carbon Steel	1	
12	Lever Pin	Carbon Steel	1	
13	Roller	Mc Nylon	2	
14	Washer	Rolled Steel	2	
15	Washer	Rolled Steel	2	
16	Split pin	Wrought Steel	2	
17	Split pin	Wrought Steel	2	
18	C Snap Ring	Spring Steel	1	
19	Wearing	Resin	1	
20	Piston Packing	NBR	1	
21	Gasket	NBR	2	
22	Rod Packing	NBR	1	
23	Six angles hole stop Screw	Carbon Steel	2	
24	Six angles hole stop Screw	Carbon Steel	1	
25	Magnet Ring	NBR	1	
26	Shock Absorber	-	1	
27	Du Bush	Lead Bronze	1	
28	O-Ring	NBR	2	
29	Six Angles hole Bolt	Carbon Steel	4	
30	Damper	Carbon Steel	1	
31	Six Angles stop Screw	Carbon Steel	1	
32	Stopper Blook	Carbon Steel	1	
33	Six Angles hole Bolt	Carbon Steel	2	
34	Pass Ring	Carbon Steel	(1)	Option
35	O-Ring	NBR	(1)	Option
36	Look Bar	Carbon Steel	(1)	Option
37	Look Jig	Carbon Steel	(1)	Option
38	Fixing Bolt	Carbon Steel	(2)	Option
39	Look Spring(left)	Stcuinless Steel	(1)	Option
40	Look Spring(Rigot)	Stcuinless Steel	(1)	Option
41	Collar Spacer	Resin	(2)	Option
42	Look Bracket	Rolled Steel	(1)	Option
43	Stopper	Alloy steel	(2)	Option
44	Return Sprring	Swp-b	1	
45	Plug boff	Alloy Steel	1	Siage Acting
46	Solenoid V/V	-	1	DS2000 Series

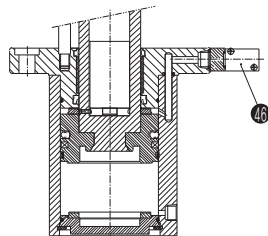
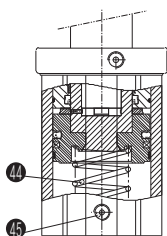
Construction / Part List

AMRBL  $\phi$ 80



■ Single Acting : ※T  
 ■ Double Spring : ※Z  
 /Built-in spring

■ V/V Type : ※Z-V※



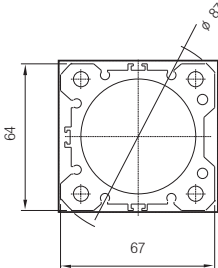
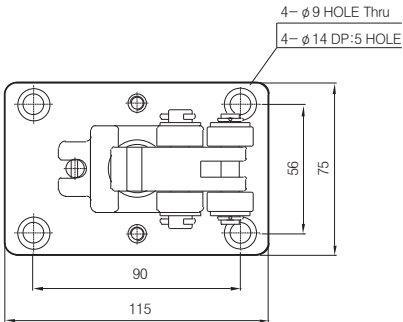
Part List

No.	Description	Material		Note
1	Tube	Aluminum alloy	1	
2	Rod Cover	Aluminum alloy	1	
3	Piston	Aluminum alloy	1	
4	Piston Rod	Carbon Steel	1	
5	Head Cover	Aluminum alloy	1	
6	Guide Rod	Carbon Steel	1	
7	Lever	Carbon Steel	1	
8	Holder	Carbon Steel	1	
9	Lever Spring	Spring Steel	1	
10	Bumper	NBR	2	Head, Rod
11	Roller Pin	Carbon Steel	1	
12	Lever Pin	Carbon Steel	1	
13	Roller	Mc Nylon	2	
14	Washer	Rolled Steel	2	
15	Washer	Rolled Steel	2	
16	Split pin	Wrought Steel	2	
17	Split pin	Wrought Steel	2	
18	C Snap Ring	Spring Steel	1	
19	Wearing	Resin	1	
20	Piston Packing	NBR	1	
21	Gasket	NBR	2	
22	Aod Packing	NBR	1	
23	Six angles hole stop Screw	Carbon Steel	2	
24	Six angles hole stop Screw	Carbon Steel	1	
25	Magnet Ring	NBR	1	
26	Shock Absorber	-	1	
27	Du Bush	Lead Bronze	1	
28	O-Ring	NBR	2	
29	Six angles hole Bolt	Carbon Steel	4	
30	Damper	Carbon Steel	1	
31	Six angles hole stop Screw	Carbon Steel	1	
32	Port Plug	Stainless Steel	2	
33	Pass Ring	Carbon Steel	(1)	Option
34	O-Ring	NBR	(1)	Option
35	Look Bar	Carbon Steel	(1)	Option
36	Look Jig	Carbon Steel	(1)	Option
37	Fixing Bolt	Carbon Steel	(2)	Option
38	Look Spring(left)	Stcuinless Steel	(1)	Option
39	Look Spring(Rigot)	Stcuinless Steel	(1)	Option
40	Collar Spacer	Resin	(2)	Option
41	Look Bracket	Rolled Steel	(1)	Option
42	Stopper	Alloy steel	(2)	Option
43	Return Spring	Swp-b	1	
44	Plug boff	Alloy Steel	1	Siage Acting
45	Plug boff	Alloy Steel	1	Siage Acting
46	Solenoid V/V	-	1	DS2000 Series

# Series NST

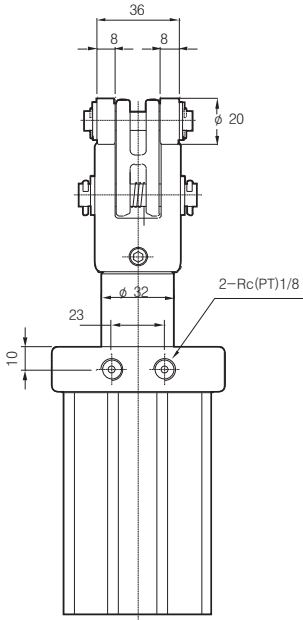
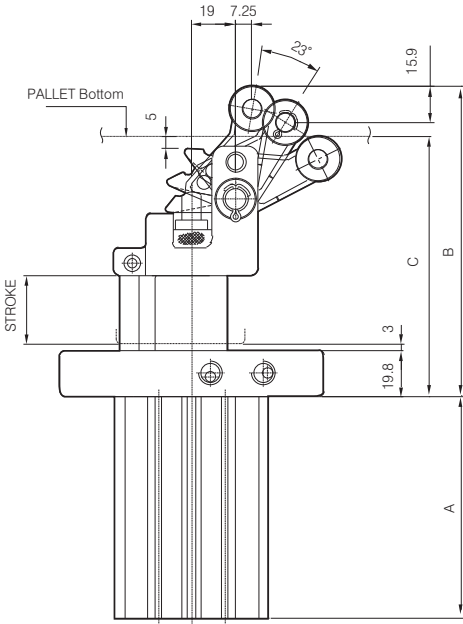
## Dimensions

NSTLA50 (Standard)



TUBE Cutting

Caution : Mounting  $\square 66 \times 69$



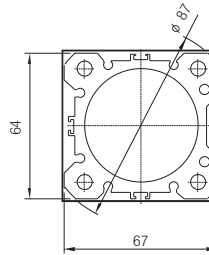
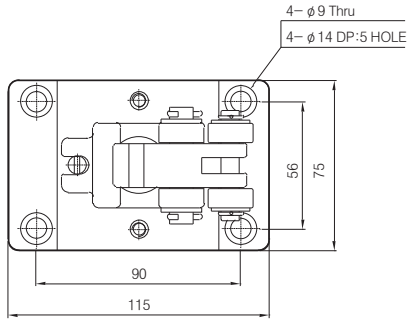
(Unit : mm)

Dim	A	B	C
St. 25	91.7	130	108
30	96.7	135	113
40	106.7	145	123

# Series NST

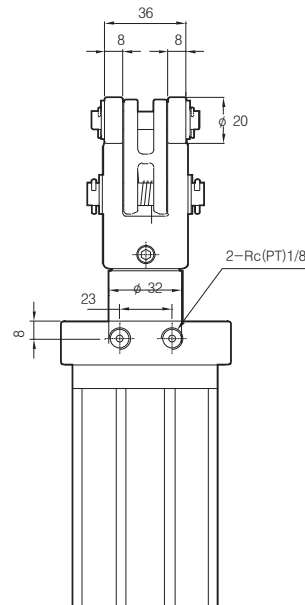
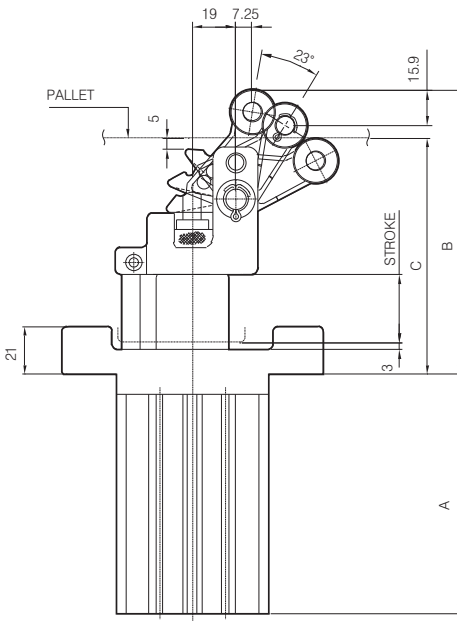
## Dimensions

### NSTLB50 (Rod Cover Slim Type)



#### TUBE Cutting

Caution : Mounting  $\square 66 \times 69$



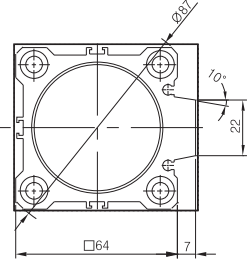
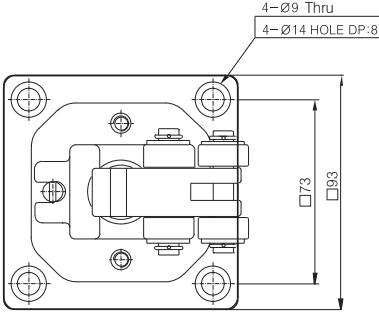
(Unit : mm)

St.	Dim	A	B	C
25(Rod Cover Slim Type)		100.5	120	99
30(Rod Cover Slim Type)		105.5	125	104

# Series NST

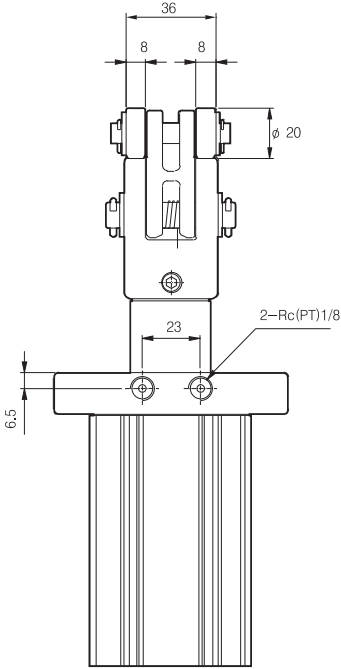
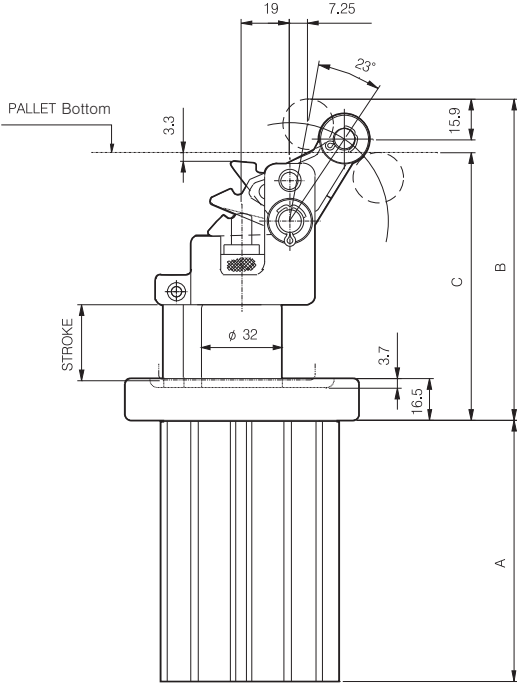
## Dimensions

NSTLC50 (Square)



TUBE Cutting

Caution : Mounting □ 66×69



(Unit : mm)

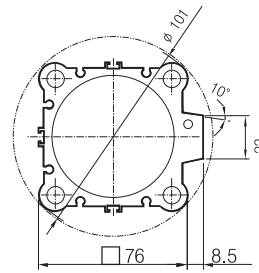
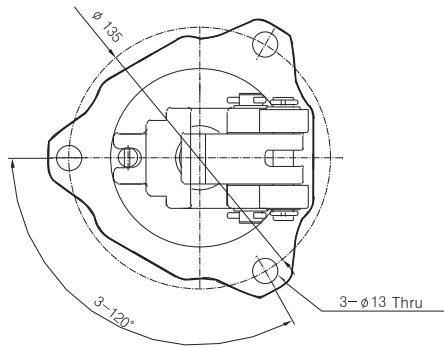
St.	Dim	A	B	C
30(Square)		103	127.2	106



# Series NST

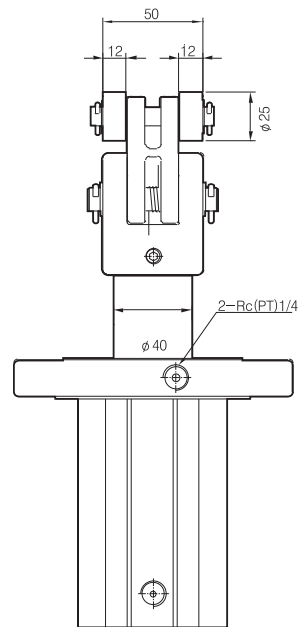
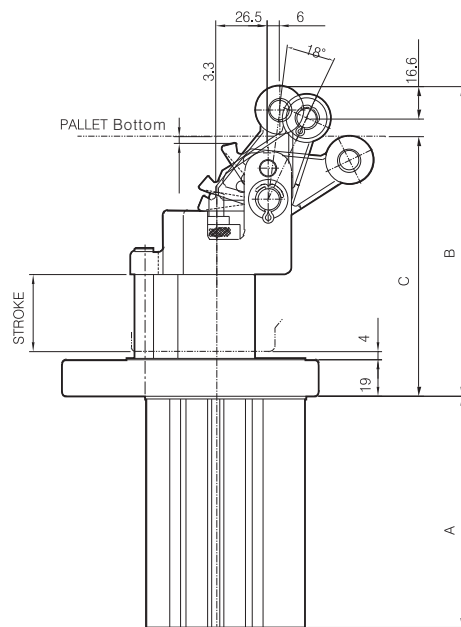
## Dimensions

NSTLA63 (Standard)



### TUBE Cutting

Caution : Mounting  $\phi 103$



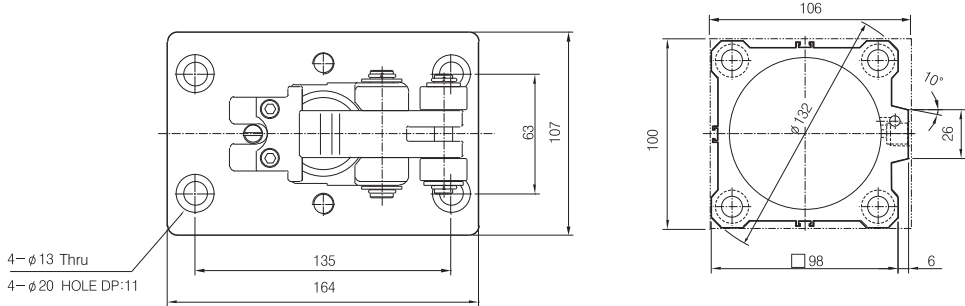
(Unit : mm)

St.	Dim	A	B	C
30		109	150	124
40		119	160	134

# Series NST

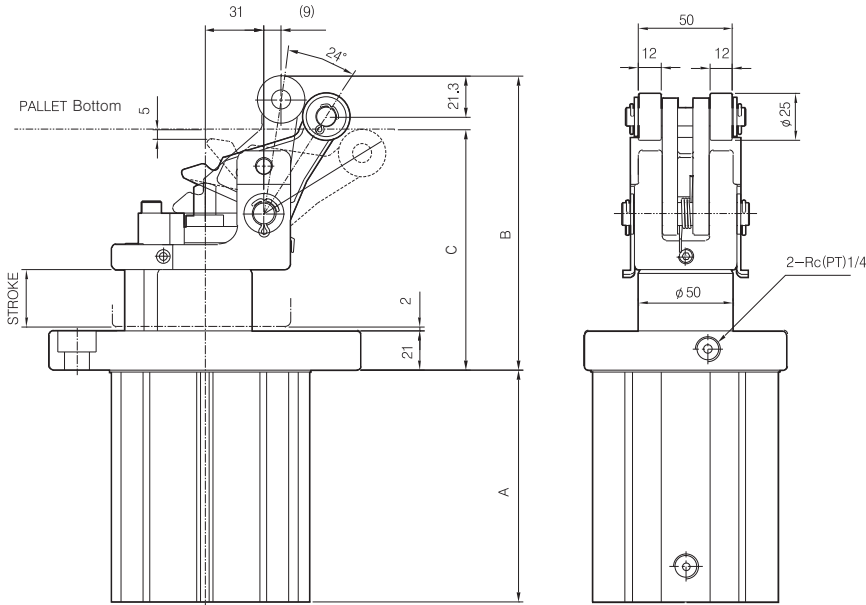
## Dimensions

NSTLA80 (Standard)



**TUBE Cutting**

Caution : Mounting □ 100×106



(Unit : mm)

St.	Dim	A	B	C
30		122	155	127
40		132	165	137