

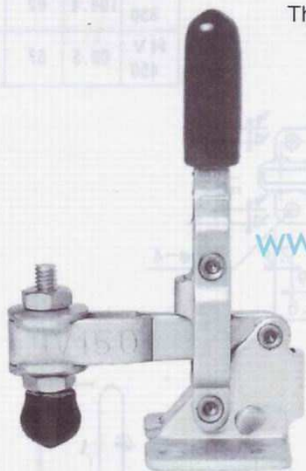
### NO.HV150

All rivets are made of stainless

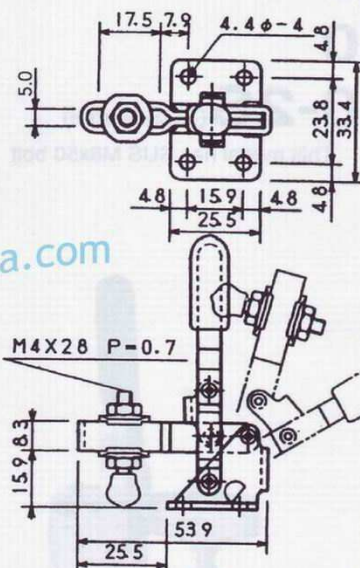
This model has nylon covered bolt and is ideal for lightweight materials and light work.

### NO.HV150-2S (SUS Model)

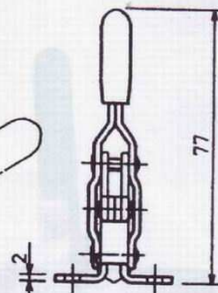
This model has SUS M4x25 bolt



W. 70g Holding capacity 45kg



HANDLE MOVES.....60°  
BAR MOVES.....105°



NO.HV150

### NO.HV153-XL

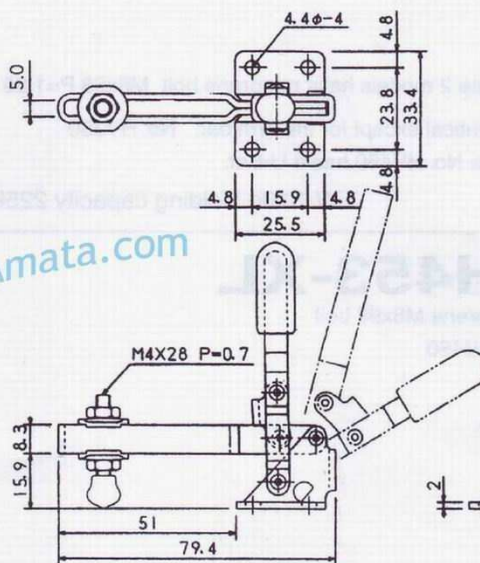
All rivets are made of stainless

This model has nylon covered bolt and is ideal for lightweight materials and light work.

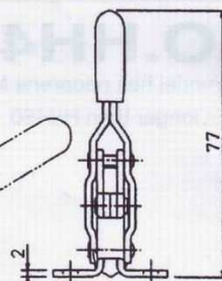
Arm is longer than HV 150



W. 75g Holding capacity 45kg~19kg



HANDLE MOVES.....60°  
BAR MOVES.....105°



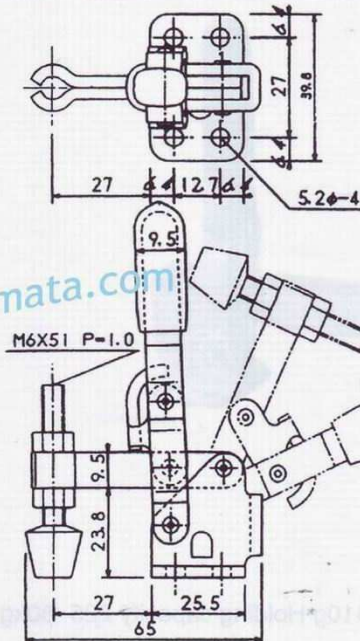
### NO.HV250

All rivets are made of stainless

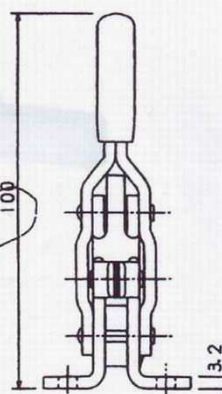
This model has neoprene M6X51



W. 170g Holding capacity 90kg



HANDLE MOVES.....65°  
BAR MOVES.....115°



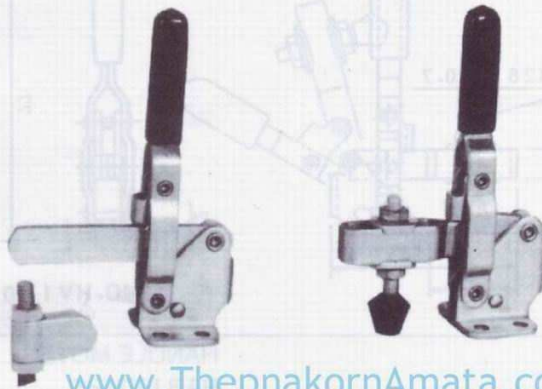


## NO.HH350

## NO.HH450

## NO.HH450-2S (SUS Model)

This model has SUS M8x50 bolt



[www.ThepnakornAmata.com](http://www.ThepnakornAmata.com)

These 2 models have neoprene bolt M8x68 P=1.25

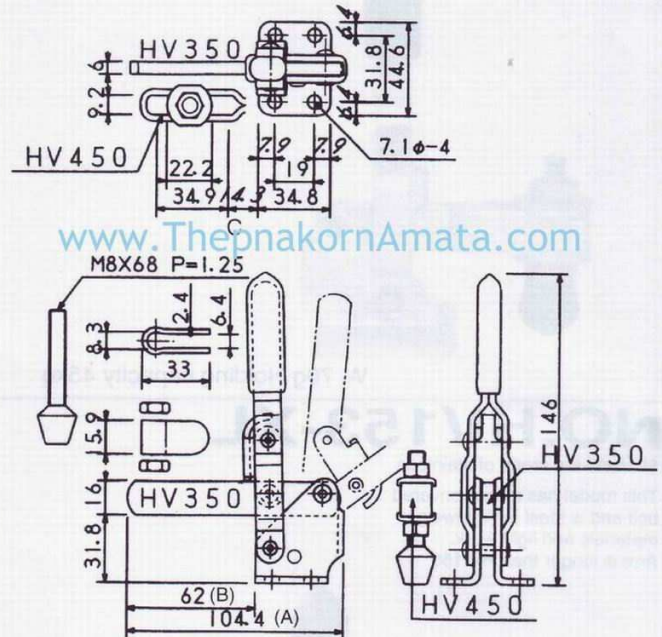
Both models are identical except for the arm bar. No. HV350 has a solid bar, while No. HV450 has a U-Bar.

W. 310g Holding capacity 225kg

HANDLE MOVES.....60°

BAR MOVES.....100°

	A	B	C
HV 350	104.4	62	
HV 450	99.5	57	34.9



[www.ThepnakornAmata.com](http://www.ThepnakornAmata.com)

## NO.HH453-XL

This model has neoprene M8x68 bolt

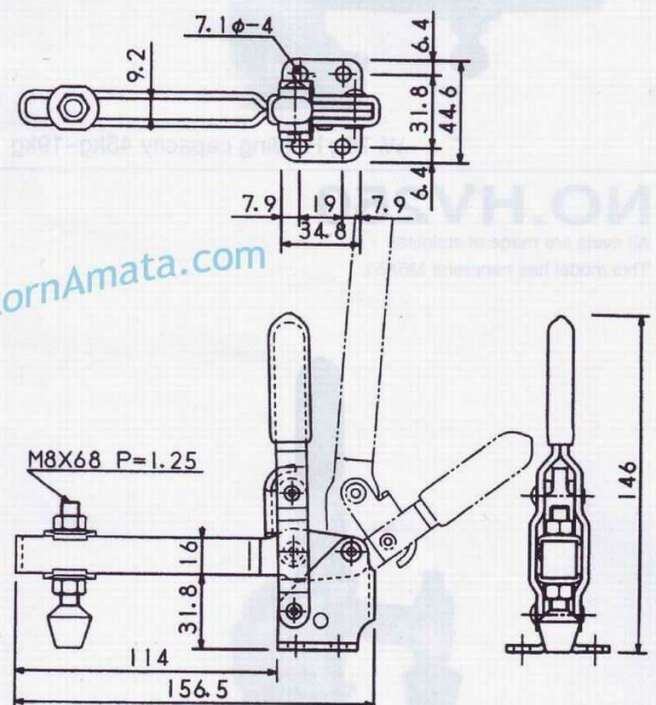
Arm is longer than HV450



[www.ThepnakornAmata.com](http://www.ThepnakornAmata.com)

HANDLE MOVES.....60°

BAR MOVES.....100°



W. 410g Holding capacity 225~80kg

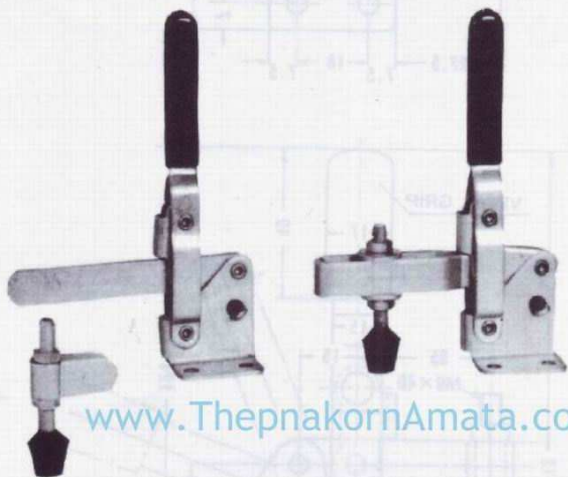


**NO.HH550**  
**NO.HH650**

Both models are identical except for the arm bar.

No. HV 550 has a solid bar, while No. HV 650 has a U-Bar.

These models are intended for standard working conditions.



NO. HV550

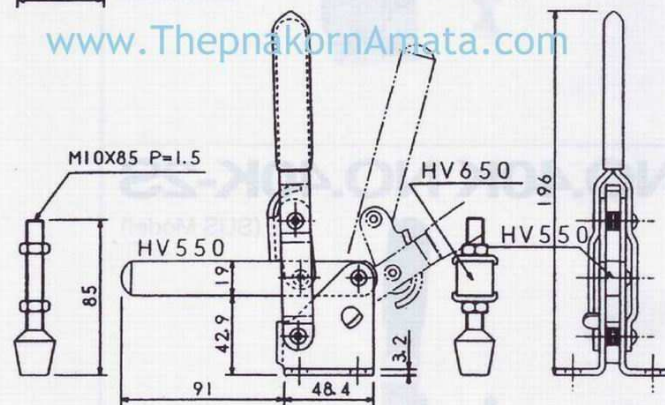
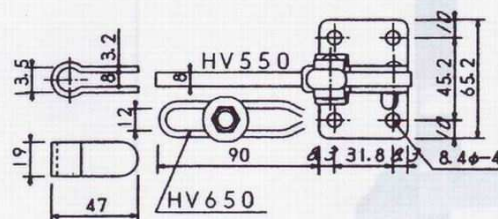
NO. HV650

These models have neoprene M10x85 bolt

W. 600g Holding capacity 340kg

HANDLE MOVES.....58°

BAR MOVES.....106<sup>0</sup>

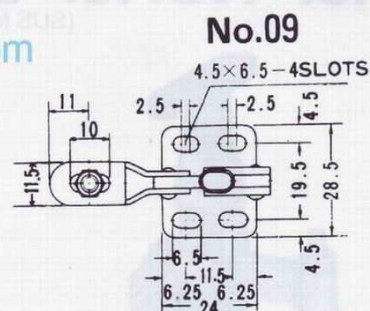


**NO.09 NO.09-2S**  
(SUS Model)

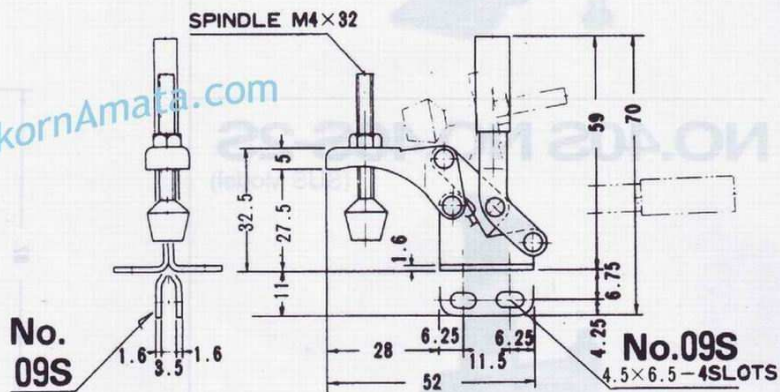


HANDLE MOVES.....88°

BAR MOVES.....80°



# NO.09S

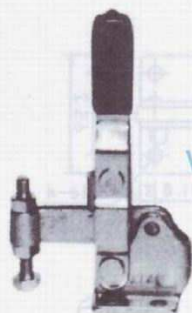


W. 40g Holding capacity 30kg



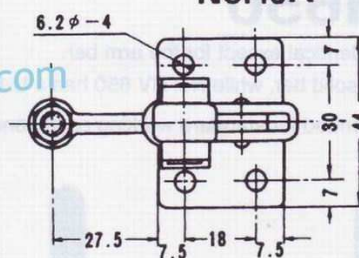
## NO.40A NO.40A-2S

(SUS Model)



HANDLE MOVES.....65°  
BAR MOVES.....95°

**No.40A**

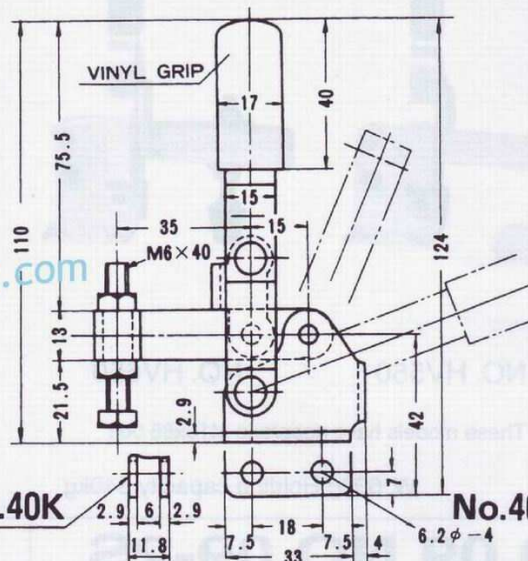


## NO.40K NO.40K-2S

(SUS Model)



W. 200g Holding capacity 100kg



**No.40K**

**No.40K**

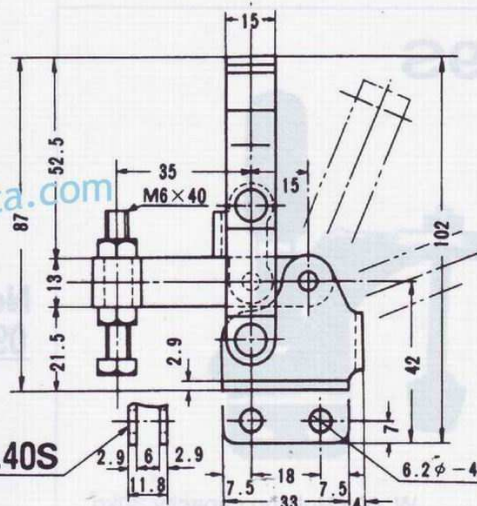
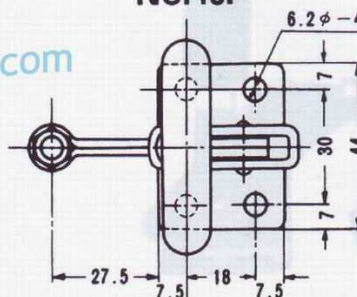
## NO.40P NO.40P-2S

(SUS Model)



HANDLE MOVES.....65°  
BAR MOVES.....95°

**No.40P**



**No.40S**

**No.40S**

## NO.40S NO.40S-2S

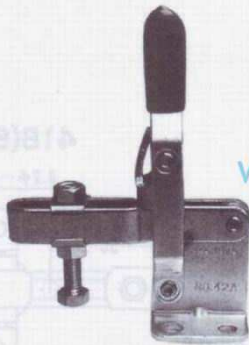
(SUS Model)



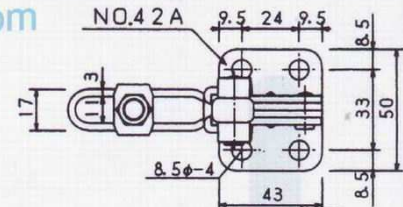
W. 210g Holding capacity 100kg



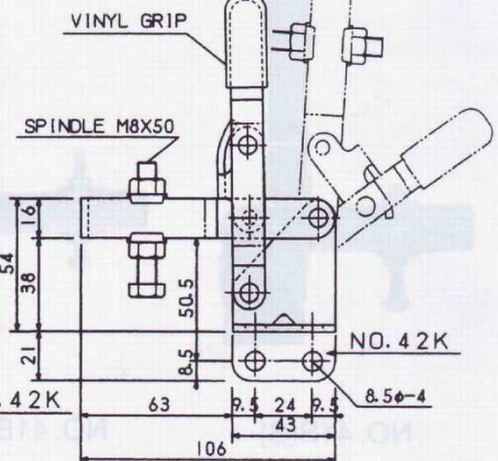
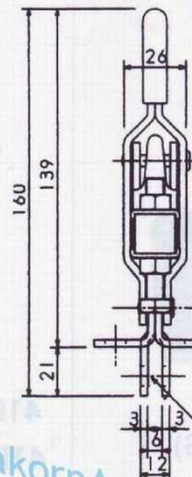
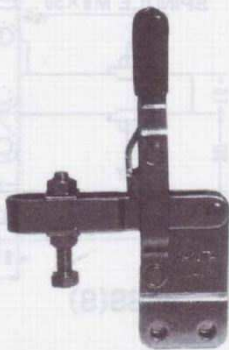
## NO.42A NO.42A-2S (SUS Model)



HANDLE MOVES.....54°  
BAR MOVES.....94°



## NO.42K NO.42K-2S (SUS Model)

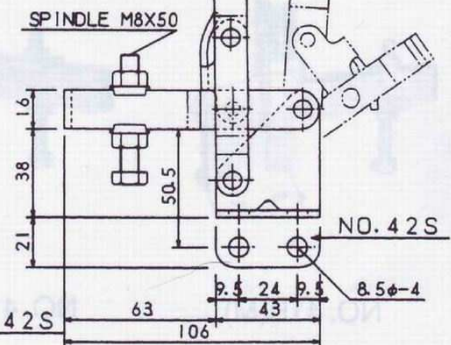
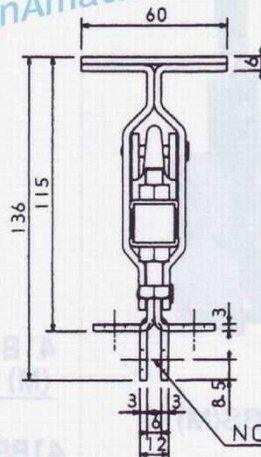
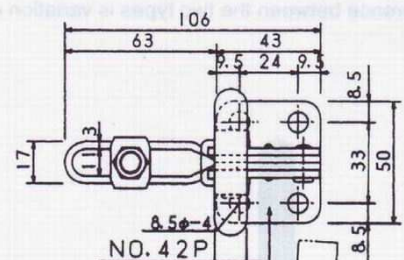


W. 390g Holding capacity 150kg

## NO.42P



HANDLE MOVES.....54°  
BAR MOVES.....94°



## NO.42S

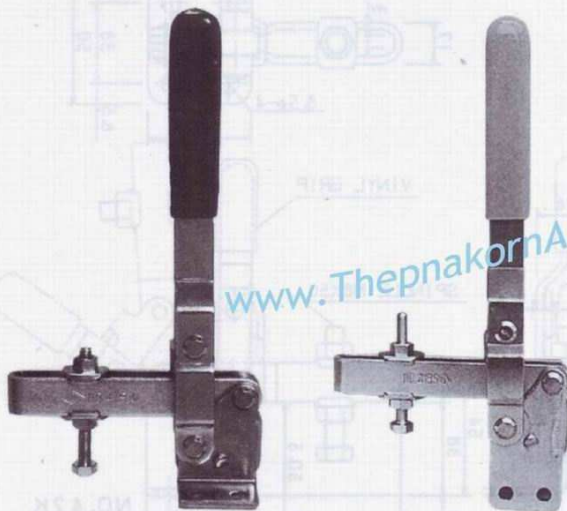


W. 400g Holding capacity 150kg



## NO.41B(S) NO.41BS(S)

The difference between the two types is variation of fixing base.

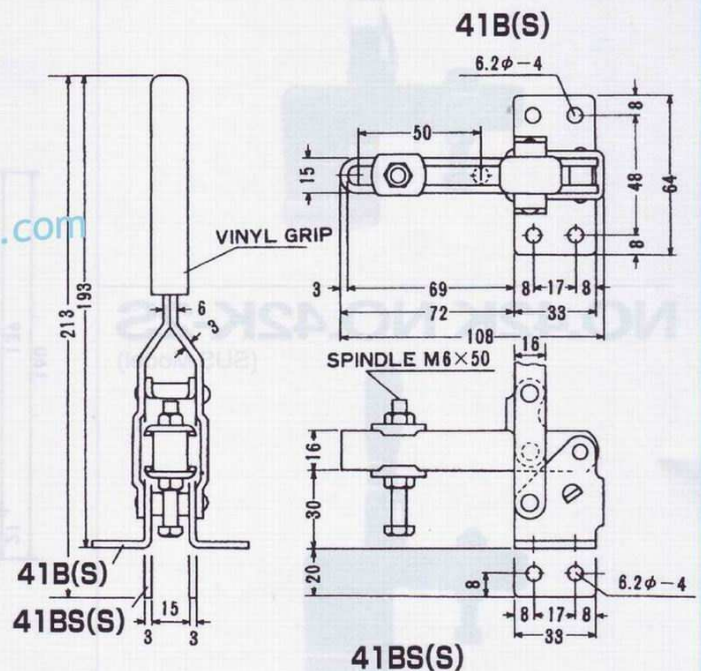


NO. 41B(S)

NO. 41BS(S)

W. 385g Holding capacity 200kg

HANDLE MOVES.....64°  
BAR MOVES.....110°



## NO.41B(M) NO.41BS(M)

The difference between the two types is variation of fixing base.

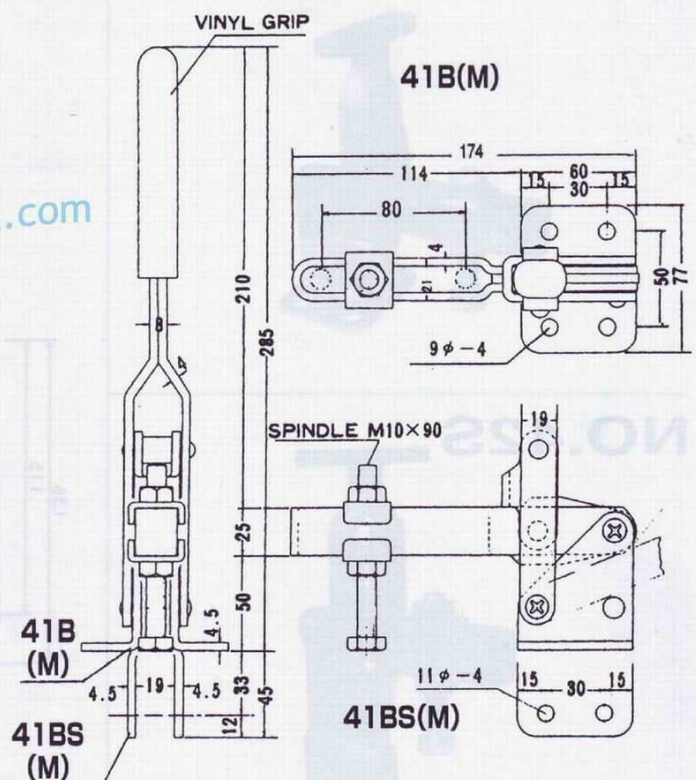


NO. 41B(M)

NO. 41BS(M)

W. 1,300g Holding capacity 300kg

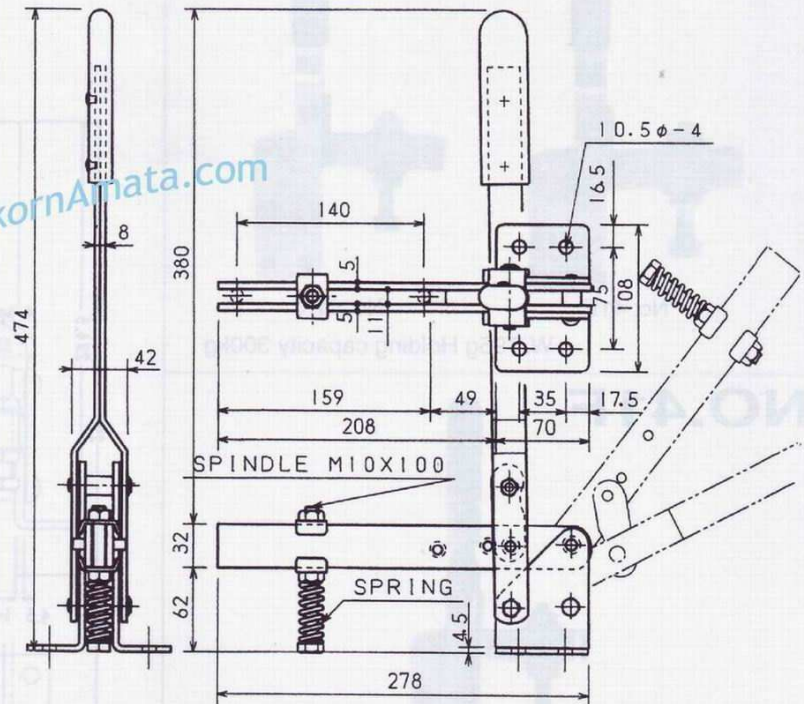
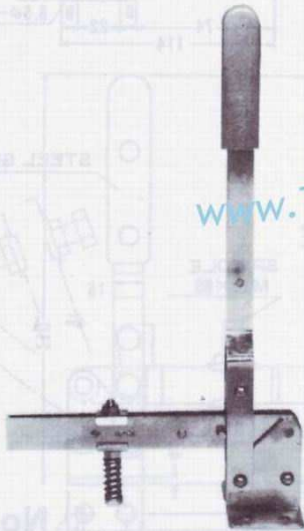
HANDLE MOVES.....67°  
BAR MOVES.....140°



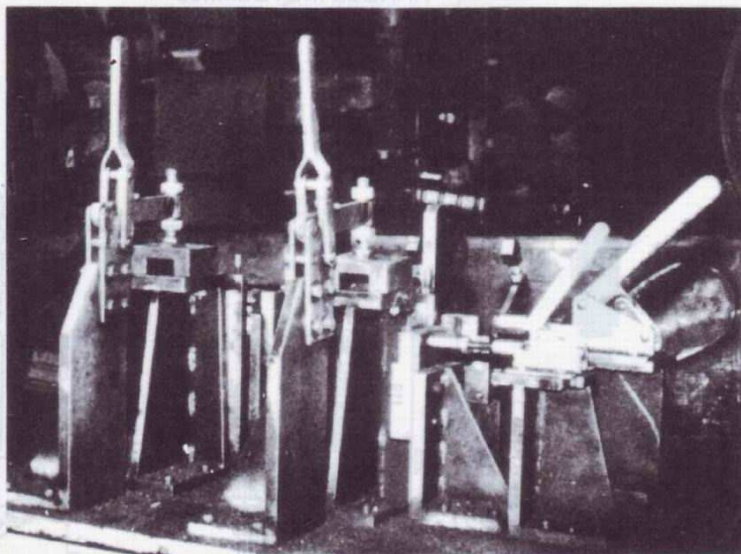


## NO.41B(L)

HANDLE MOVES.....85°  
BAR MOVES.....125°



W. 2,180g Holding capacity 300kg

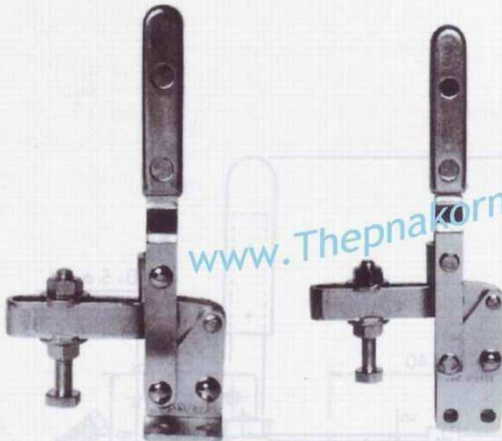


The picture shows that Hold-down Action type Clamps and Straight-line Action type Clamps are used together for assembling jigs. There are about 20 types of the Straight-line Action (pull/push) type Clamps. They hold and fix the processing goods from lateral side by one touch.



### NO.41E NO.41K

The difference between the two types is variation of fixing base.



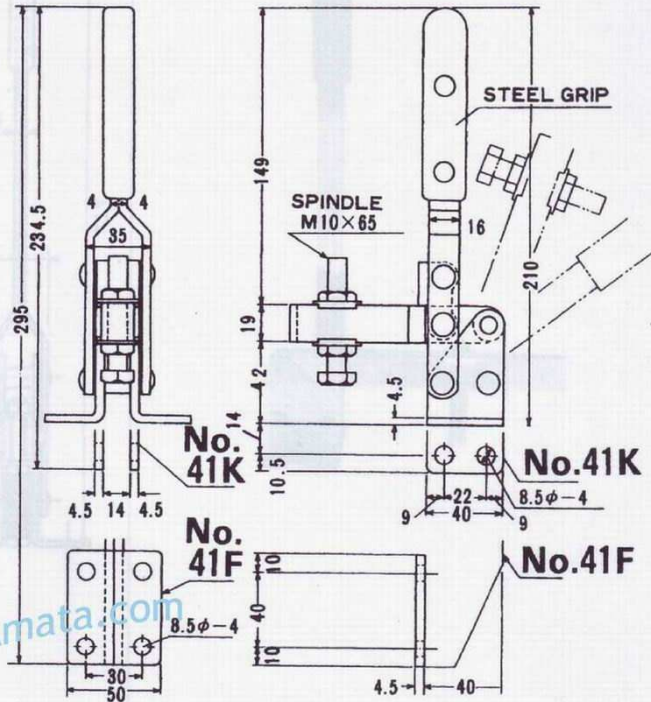
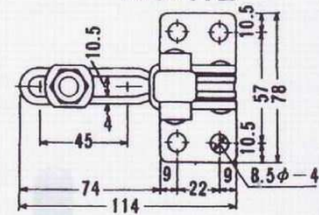
No. 41E

No. 41K

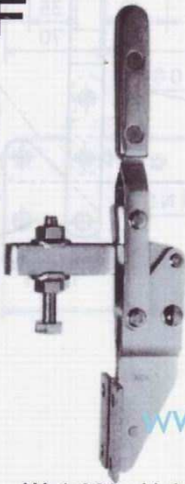
W. 795g Holding capacity 300kg

HANDLE MOVES.....53°  
BAR MOVES.....110°

No.41E

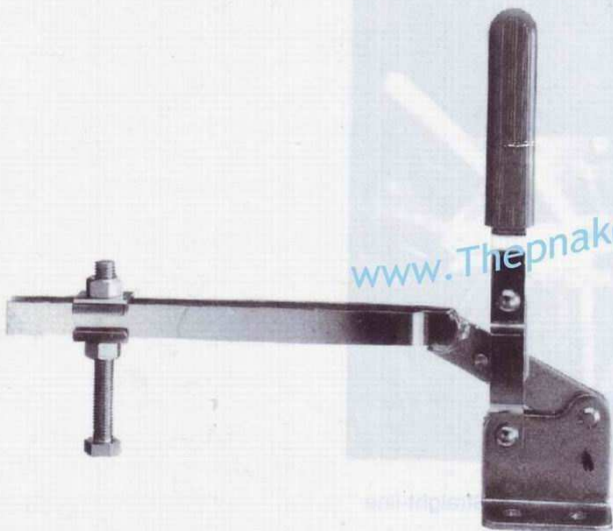


### NO.41F



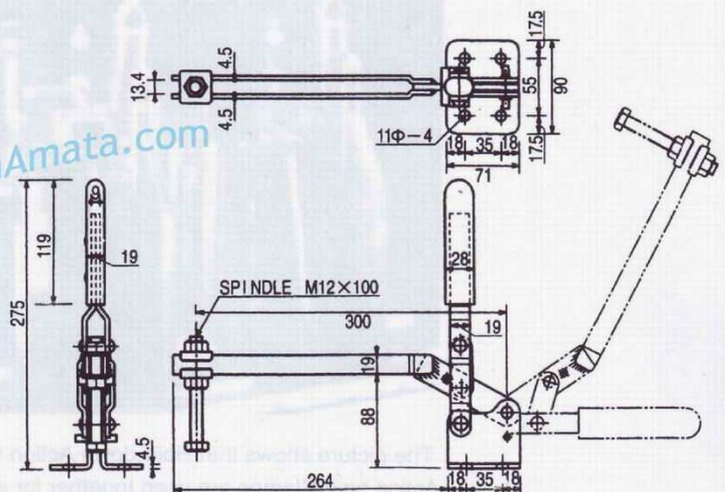
W. 1,000g Holding capacity 300kg

### NO.J-2B



W. 1,500g Holding capacity 100kg~370kg

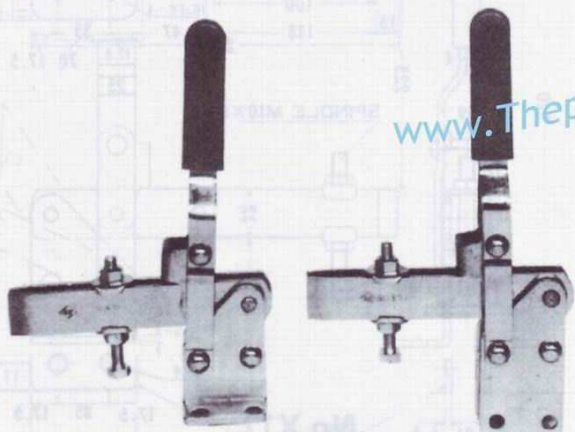
HANDLE MOVES.....90°  
BAR MOVES.....110°





### NO.X12 NO.X15

The difference between the two types is variation of fixing base.



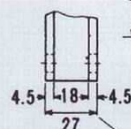
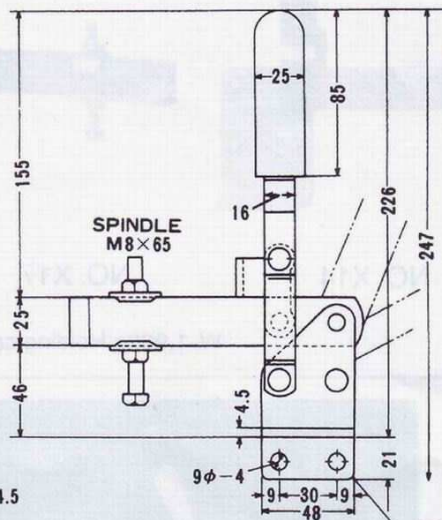
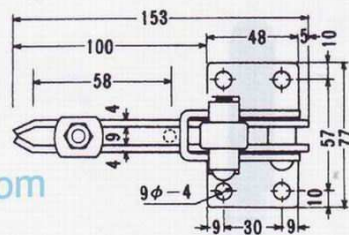
NO. X12

NO. X15

W. 890g Holding capacity 200kg

HANDLE MOVES.....60°  
BAR MOVES.....115°

#### No.X12

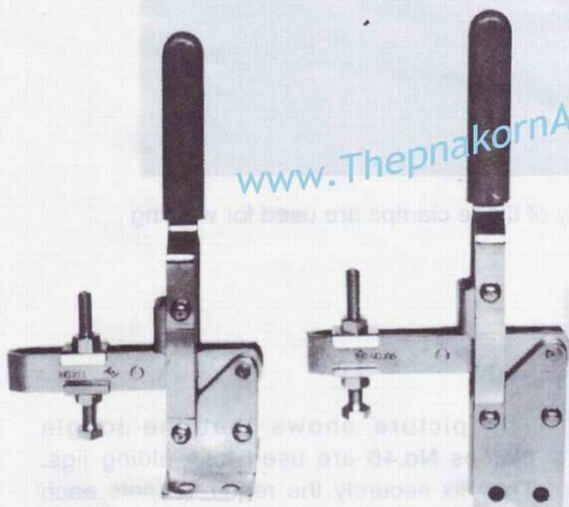


No.X15

No.X15

### NO.X13 NO.X16

The difference between the two types is variation of fixing base.



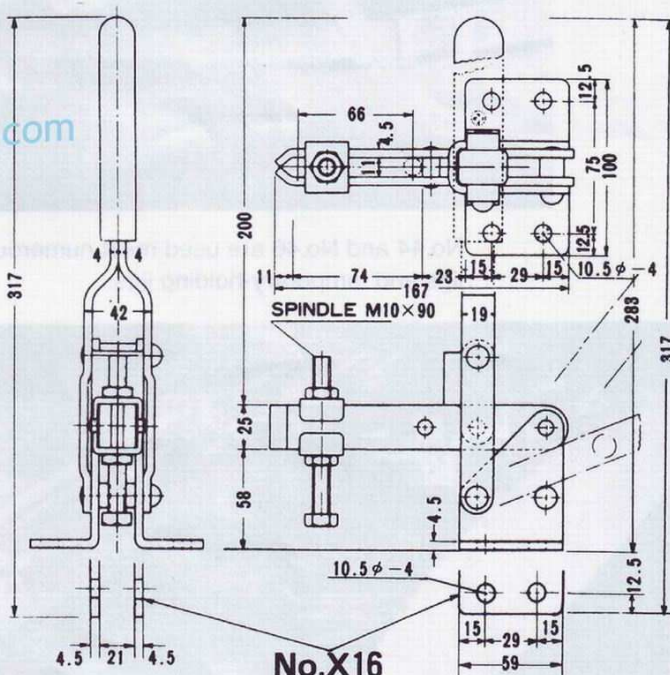
NO. X13

NO. X16

W. 1,330g Holding capacity 300kg

HANDLE MOVES.....68°  
BAR MOVES.....128°

#### No.X13

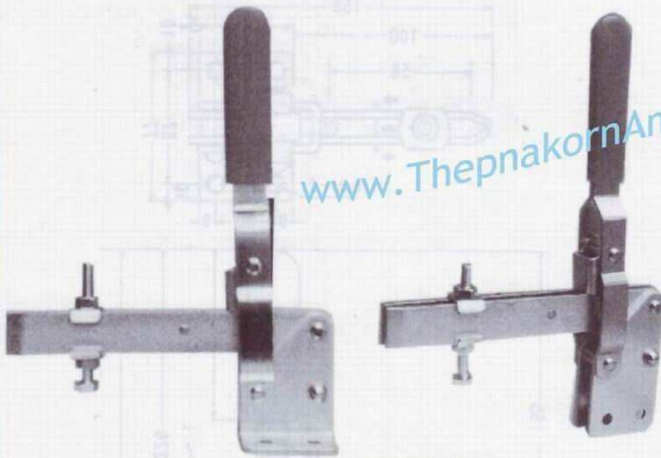


No.X16



### NO.X14 NO.X17

The difference between the two types is variation of fixing base.



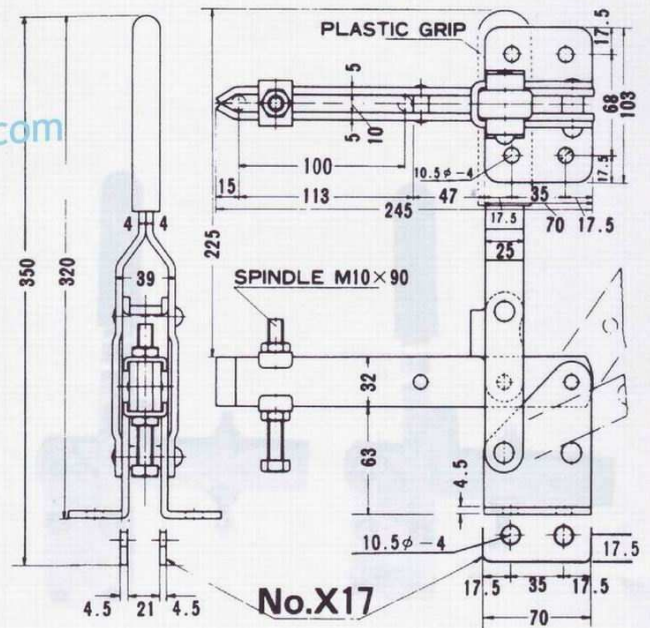
NO. X14

NO. X17

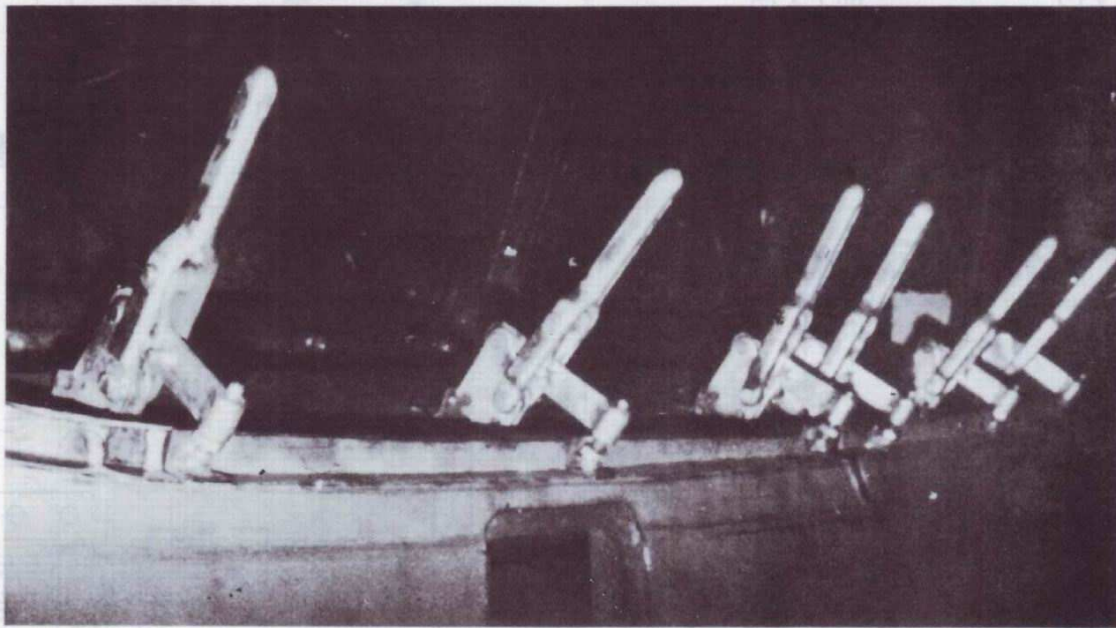
W. 1,960g Holding capacity 350kg

HANDLE MOVES.....67°  
BAR MOVES.....125°

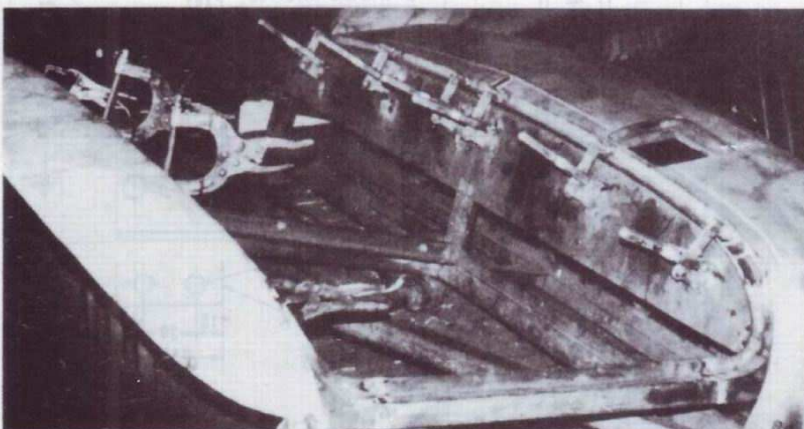
No.X14



No.X17



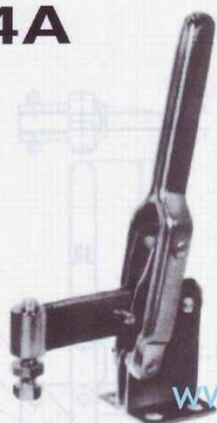
No.44 and No.46 are used most numerous. Plenty of these clamps are used for welding jigs and temporary-holding jigs.



The picture shows that the toggle clamps No.46 are used for welding jigs. They fix securely the required spots each by one touch.



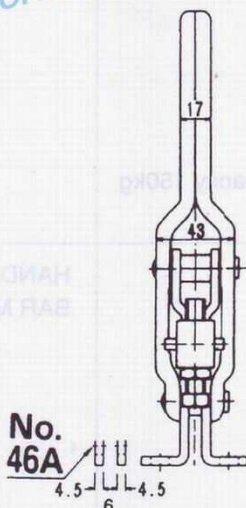
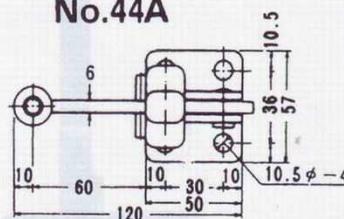
## NO.44A



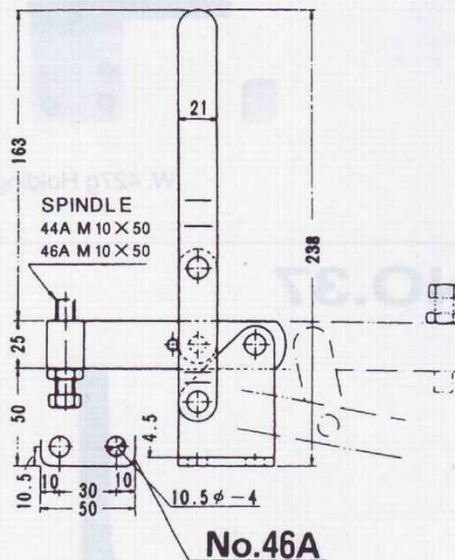
W. 870g Holding capacity 280kg

HANDLE MOVES.....100°  
BAR MOVES.....180°

No.44A



No. 46A



No.46A

## NO.46A



W. 815g Holding capacity 280kg

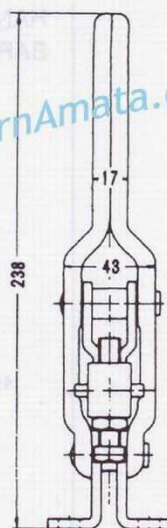
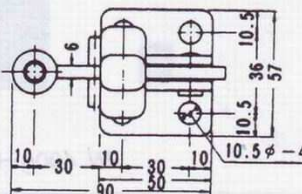
## NO.44B



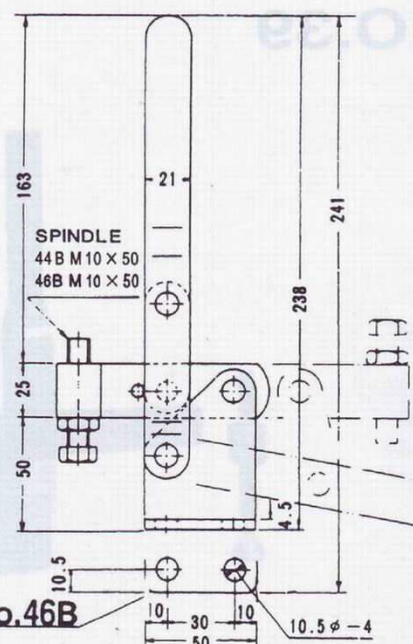
W. 840g Holding capacity 350kg

HANDLE MOVES.....100°  
BAR MOVES.....180°

No.44B

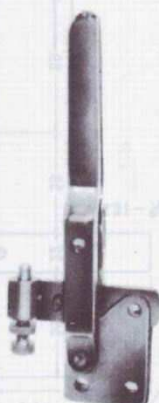


No.46B



No.46B

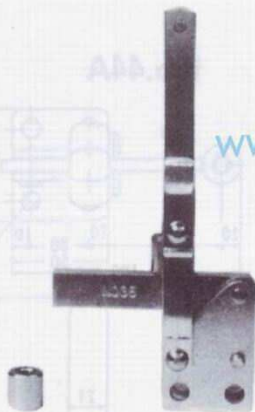
## NO.46B



W. 740g Holding capacity 350kg

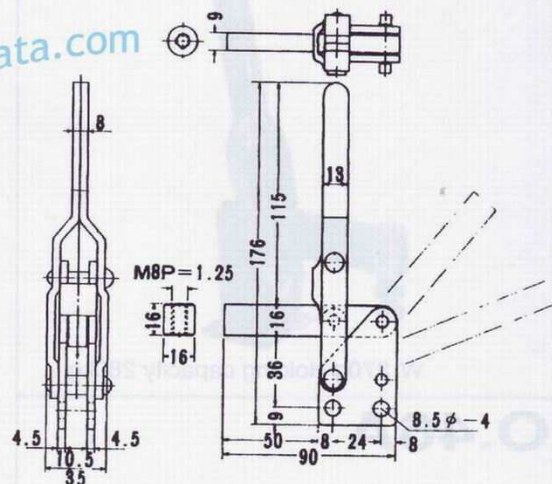


## NO.35



W. 427g Holding capacity 150kg

HANDLE MOVES.....68°  
BAR MOVES.....130°

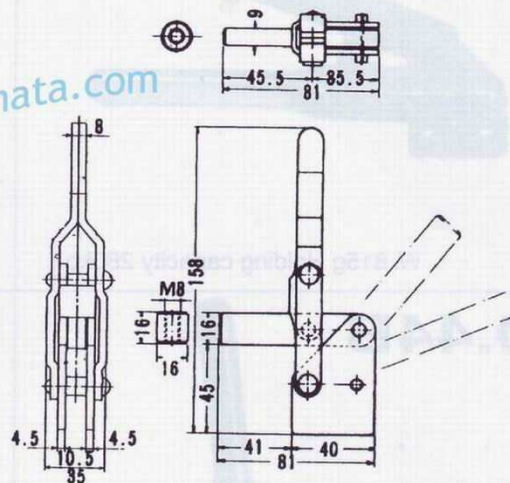


## NO.37

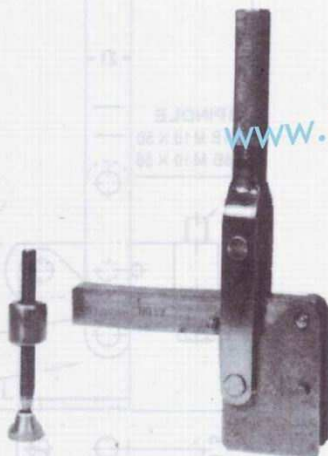


W. 400g Holding capacity 150kg

HANDLE MOVES.....70°  
BAR MOVES.....130°

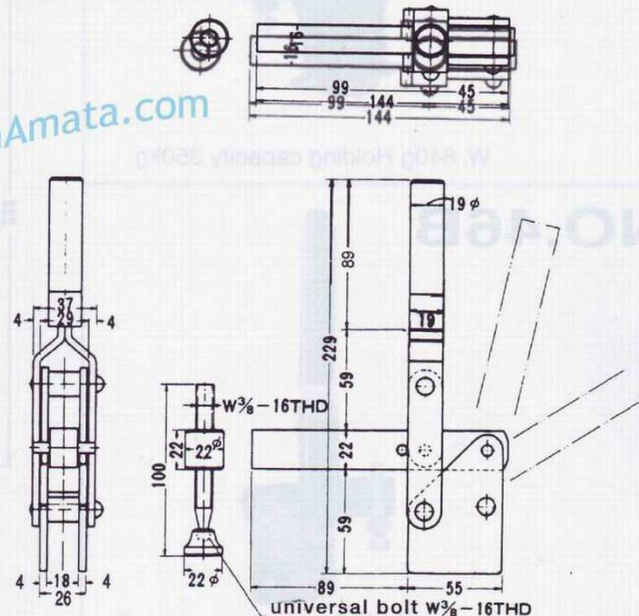


## NO.39



W. 1,170g Holding capacity 300kg

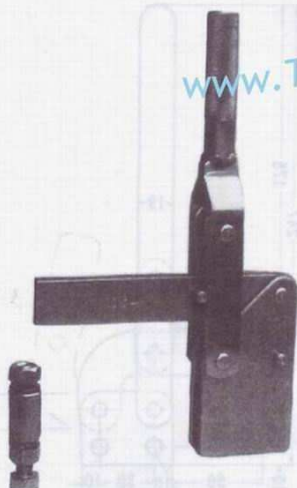
HANDLE MOVES.....65°  
BAR MOVES.....130°





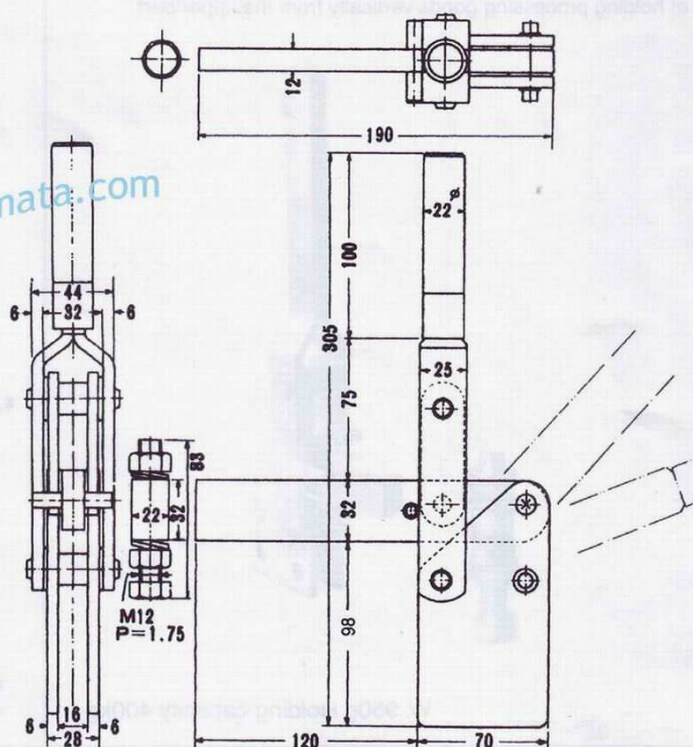
## NO.34

This type is made of hardened bush around the main rivets and durable clamp of medium size. Also it is made to be easily fitted for jigs by devising holding-arm and fixing base of the clamp.



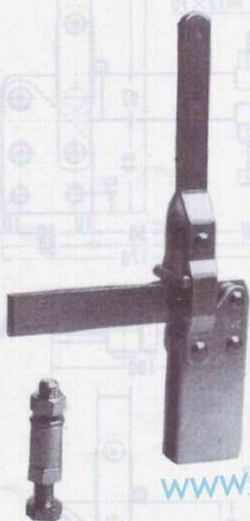
W. 2,260g Holding capacity 500kg

HANDLE MOVES.....70°  
BAR MOVES.....133°



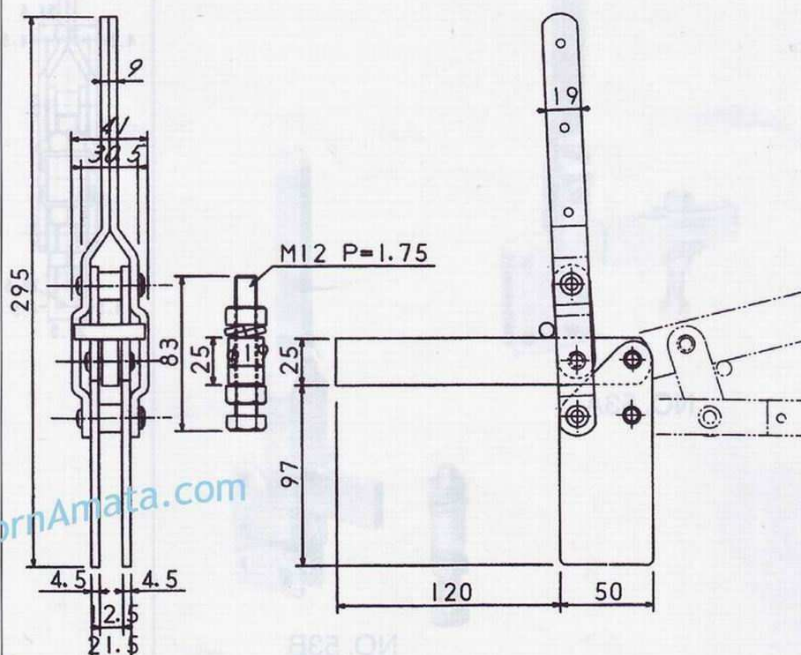
# NO.45

This No.45 type is also made of hardened bush around the main rivets and is durable clamp.



W. 1,250g Holding capacity 400kg

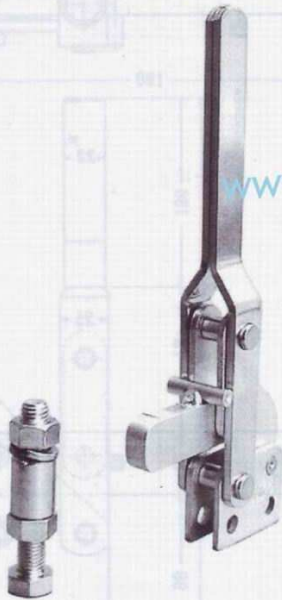
HANDLE MOVES.....93°  
BAR MOVES.....170°





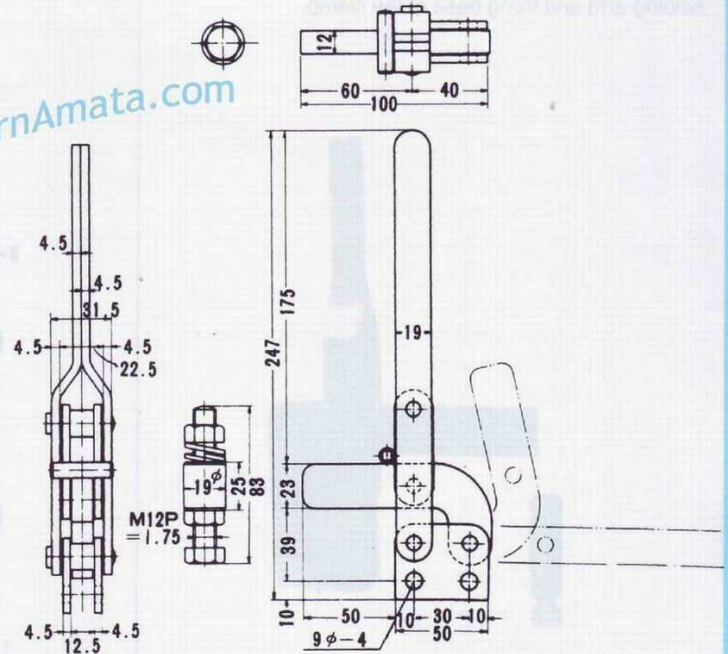
### NO.X11

Among the Hold-down action clamps, this type is capable of holding processing goods vertically from the upper part.



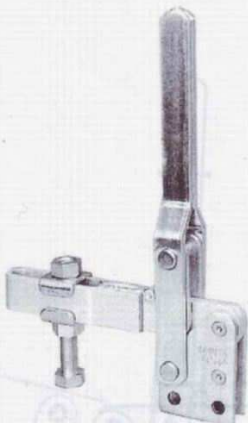
W. 950g Holding capacity 400kg

HANDLE MOVES.....90°  
BAR MOVES.....80°

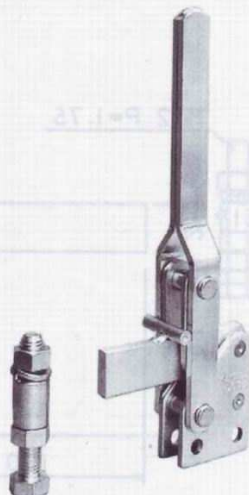


### NO.53A NO.53B

The both clamps have the same body. No.53A has a sliding tap bolt at the top of arm. No.53B is used by welding a tap bolt at optional part of top of the arm.



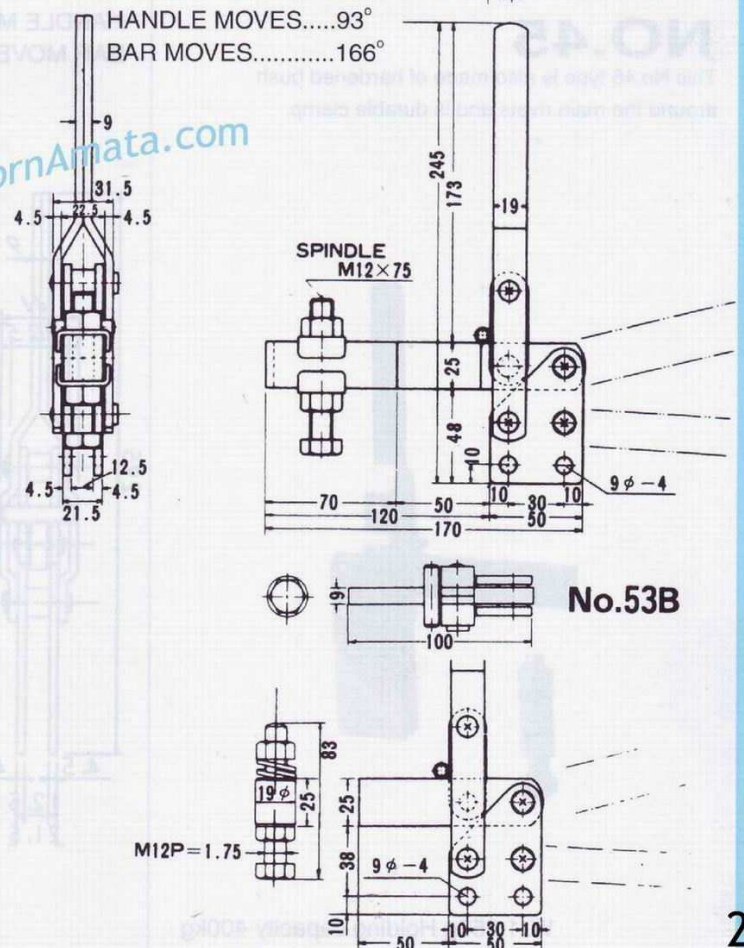
NO. 53A



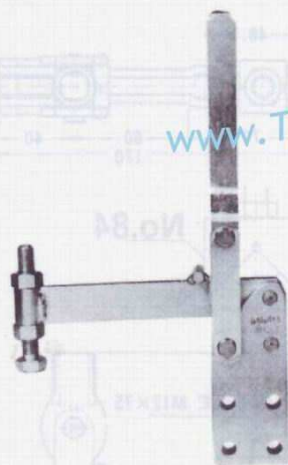
NO. 53B

No.53A W. 1,130g Holding capacity 400kg  
No.53B W. 960g Holding capacity 350kg

HANDLE MOVES.....93°  
BAR MOVES.....166°

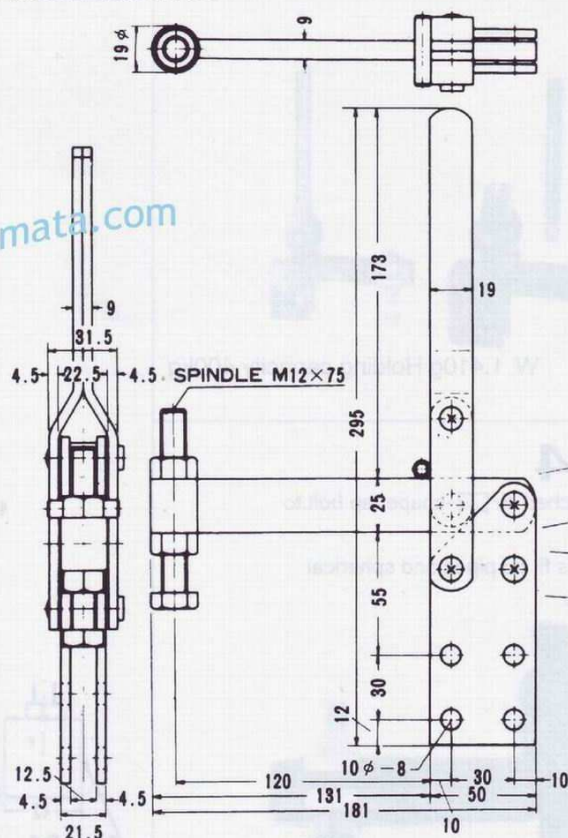




**NO.52**

W. 1,200g Holding capacity 200kg

HANDLE MOVES.....93°  
BAR MOVES.....170°

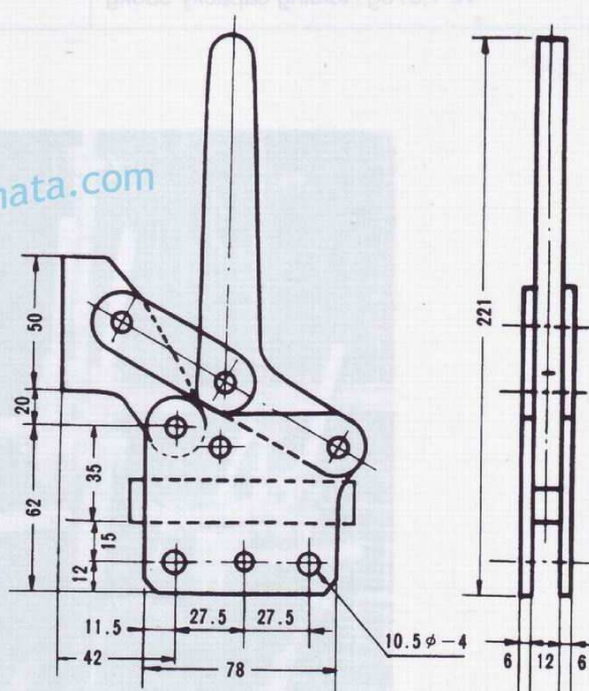


**NO.54**



W. 1,620g Holding capacity 300kg

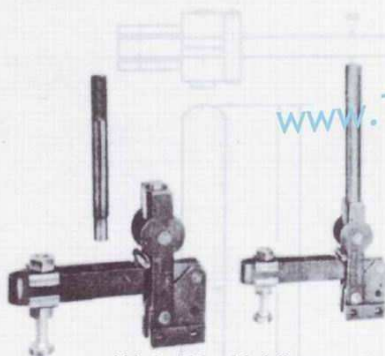
HANDLE MOVES.....85°  
BAR MOVES.....75°






### NO.36

HANDLE MOVES.....93°  
BAR MOVES.....166°

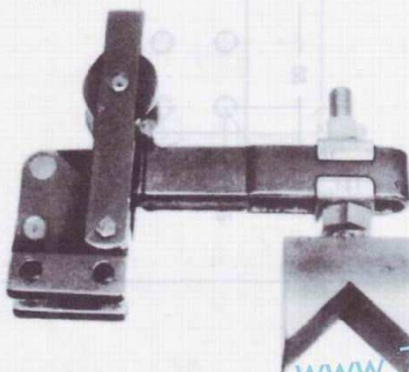


W. 1,410g Holding capacity 400kg

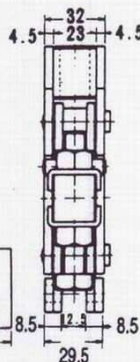
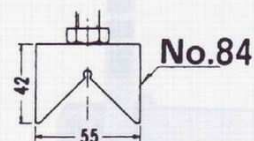
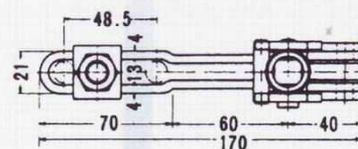
### NO.84

The clamp is attached by  -shape tap bolt to No.36 type.

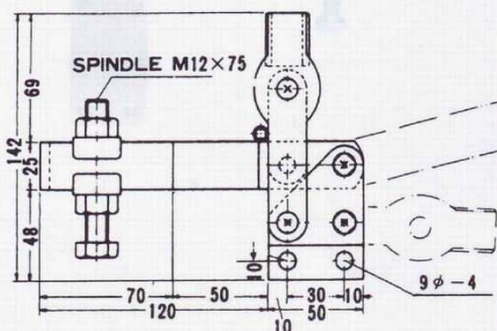
The holding part is fit for pipes and spherical processing goods.



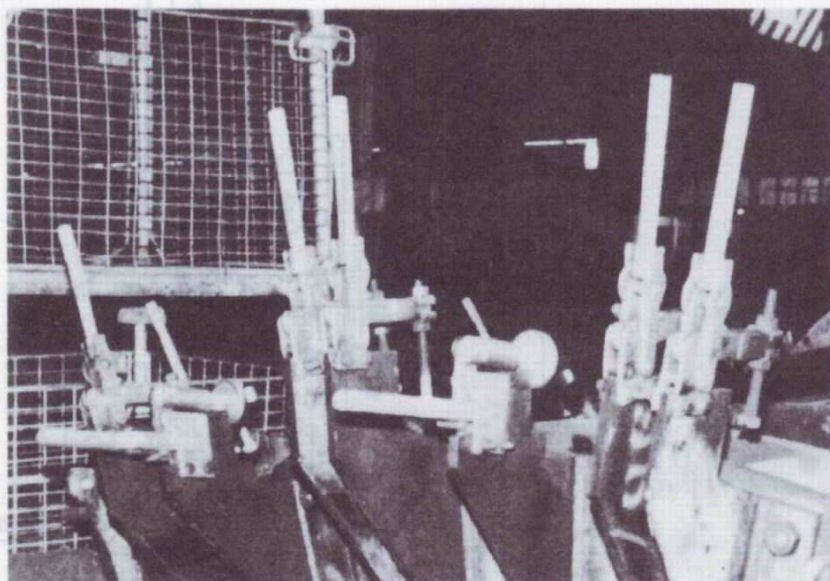
W. 1,970g Holding capacity 350kg



No.84



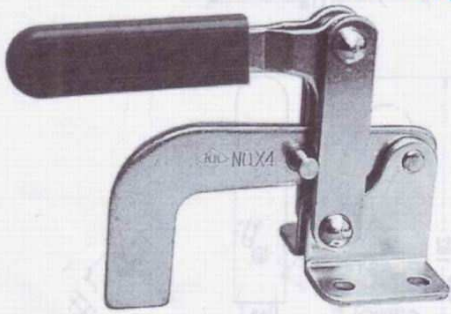
No.36



This picture shows that No.36 & No.83 Clamps are used for assembling jigs.

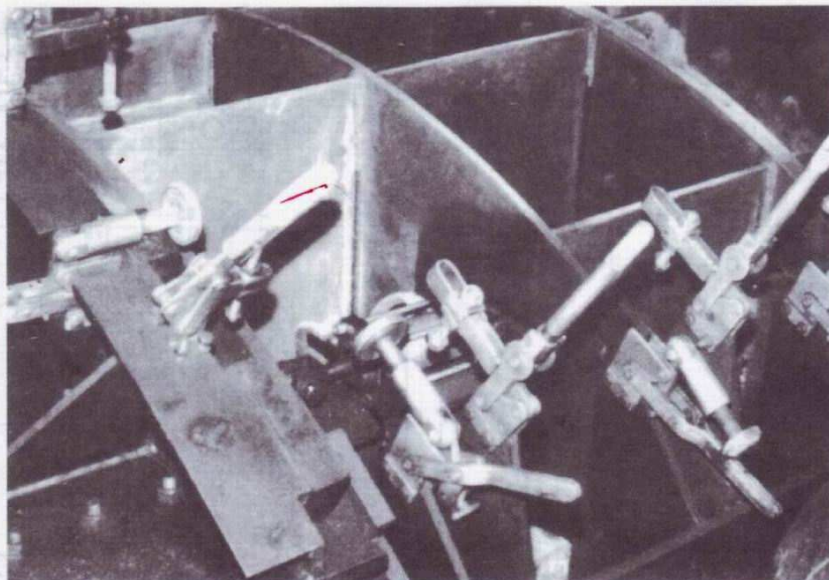
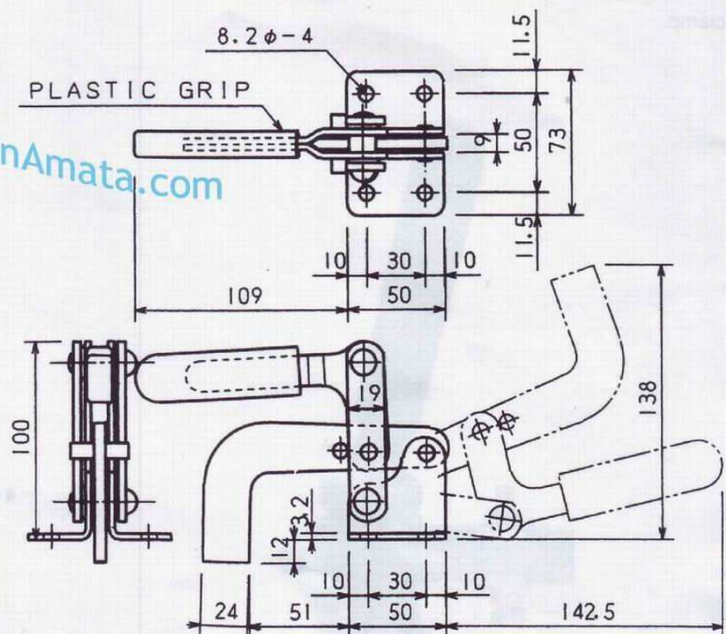


## NO.X4



W. 590g Holding capacity 200kg

HANDLE MOVES.....75°  
BAR MOVES.....130°



This picture shows that Hold-down Action Clamps and Straight-line Action Clamps are used together for assembling jigs.  
No.83, No.36, & No.130 clamps are used.



### NO.130

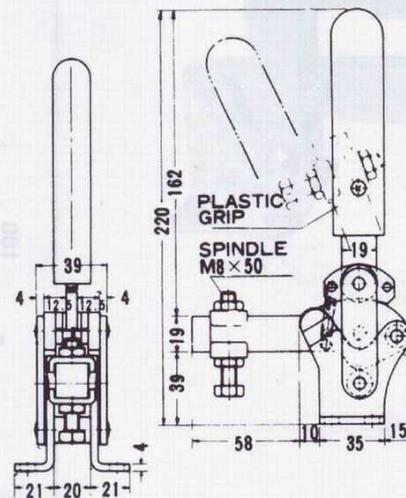
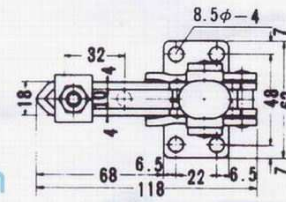
This clamp can be used by one touch and is not required for adjustment. The allowance is  $\pm 1.5\text{mm}$ .

Much variant processing goods can be fixed instantly by constant pressure without adjustment of tap bolt of this clamp.



W. 680g Holding capacity 250kg

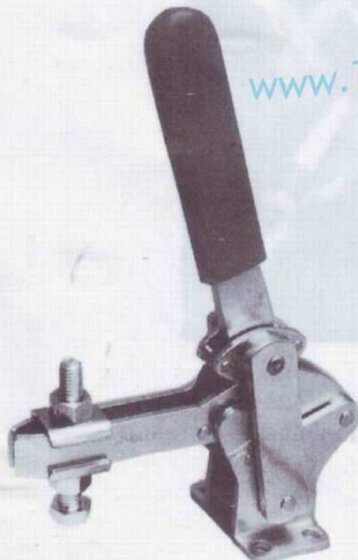
HANDLE MOVES..... $165^\circ$   
BAR MOVES..... $70^\circ$



### NO.131

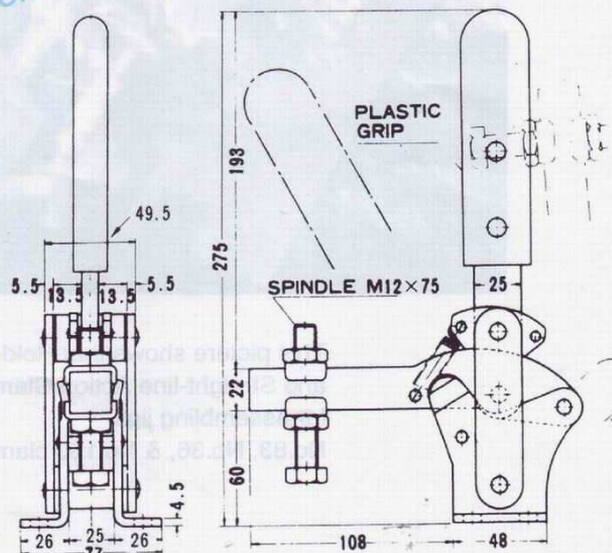
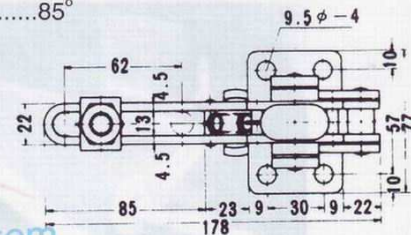
This clamp can be used by one touch and is not required for adjustment. The allowance is  $\pm 1.5\text{mm}$ .

Much variant processing goods can be fixed instantly by constant pressure without adjustment of tap bolt of this clamp.

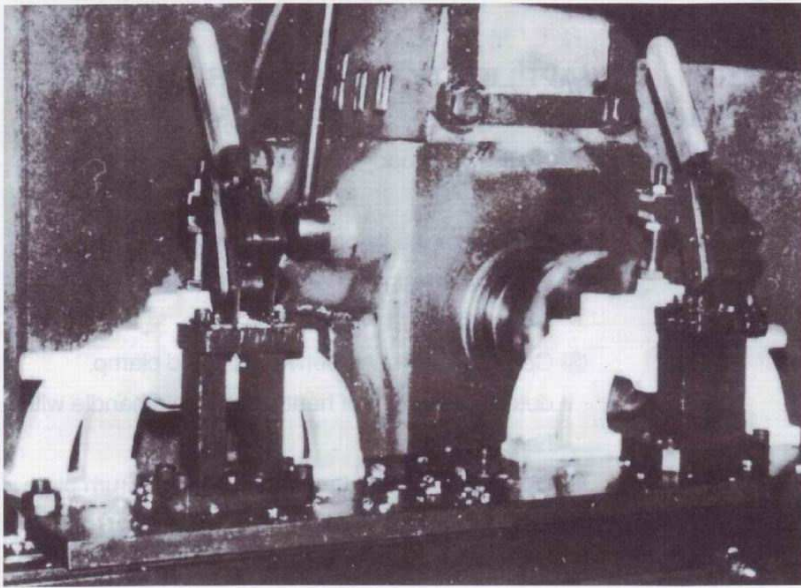


W. 1,590g Holding capacity 350kg

HANDLE MOVES..... $170^\circ$   
BAR MOVES..... $85^\circ$





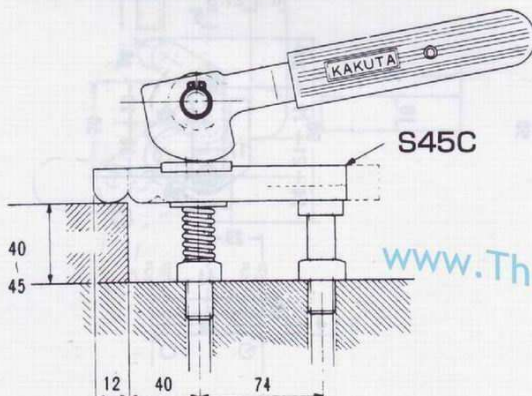
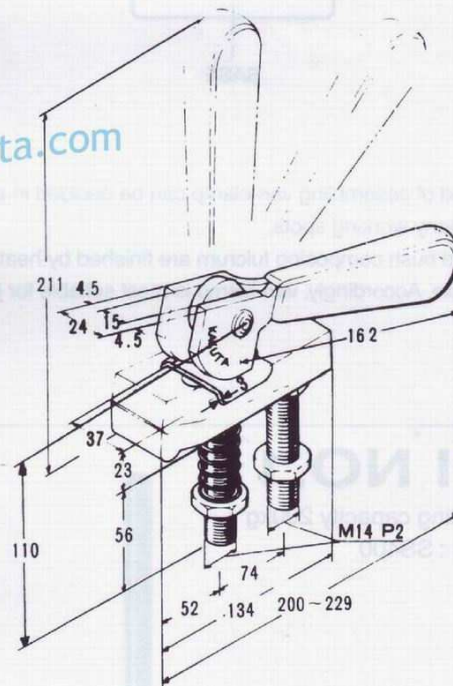
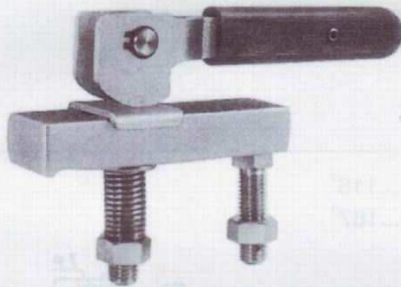


This Cam-type Clamps can hold securely thick-variuated processing goods such as steel plate, mold, etc, by one touch in the allowance of  $\pm 1.5\text{mm}$  without adjustment of holding bolt. These clamps are used for simple cutting work, surface polishing work, etc. there are 2 type of Cam Clamps that are No. 130 & No. 131.

### NO.132

W. 1,060g Holding capacity 700kg

Travel :  $1.4\text{m/m}$

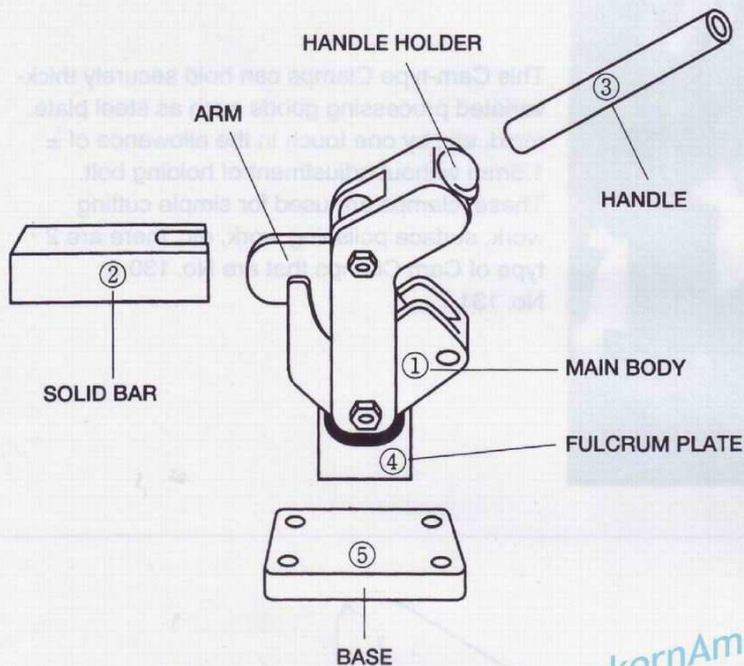


The Cam-type Clamp for cutting work is easily fitted and removed. It is also fitted simply into any spot of processing goods.

Cam handle can cope with change of thickness of processing goods sensitively in the allowance of  $\pm 1\text{mm}$  and can clamp accurately.

As the holding part is devised to slide fore-and-art, processing goods are removed easily.





### (APPLICATIONS FOR VARI-CLAMP)

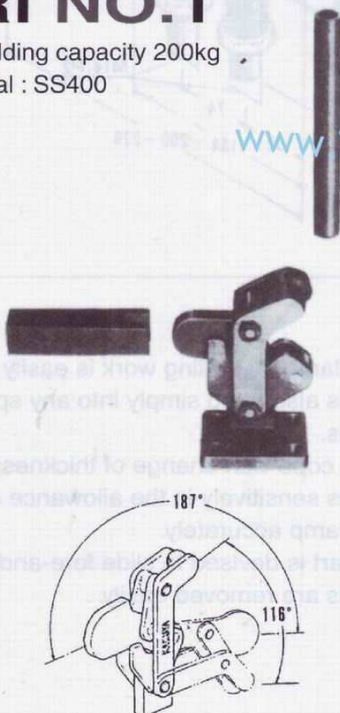
The left figure shows that vari-clamp consists of handle, main body, base and solid BAR.

- ① Determine the fixing point of main body.
  - ② Determine length of solid bar and weld it with arm.
  - ③ Considering space between jig and clamp, determine height of handle and weld handle with handle holder.
  - ④ Determine angle of main body and fulcrum plate and weld them.
  - ⑤ Determine clamp fixing method to jig. In case of using the base, weld the base with fulcrum plate.
- After assembling vari-clamp by the above steps, the vari-clamp becomes available.

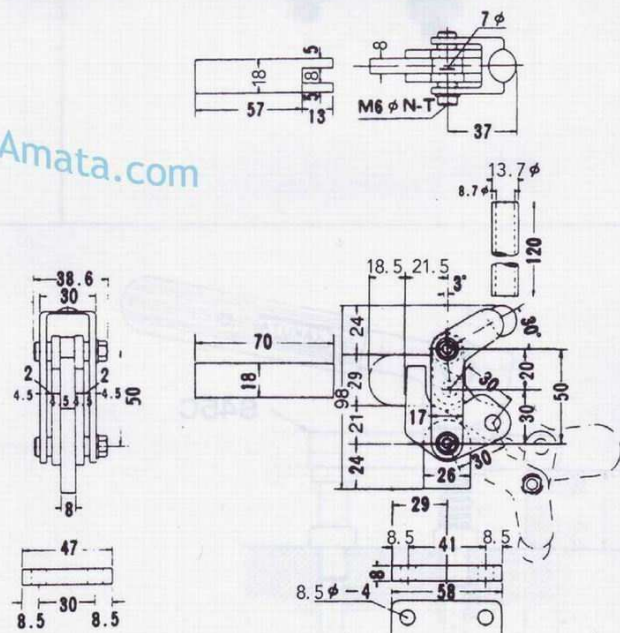
- As method of assembling vari-clamp can be decided in accordance with working conditions, vari-clamp is applicable widely and used at many working spots.
- As pin and bush composing fulcrum are finished by heat treatment (Hardness : H.R.C.60), they are assembled so that abrasion is avoidable. Accordingly, vari-clamp is most suitable for jigs that are used frequently and are required accuracy.

## VARI NO.1

W. 845g Holding capacity 200kg  
Raw Material : SS400



HANDLE MOVES.....116°  
BAR MOVES.....187°

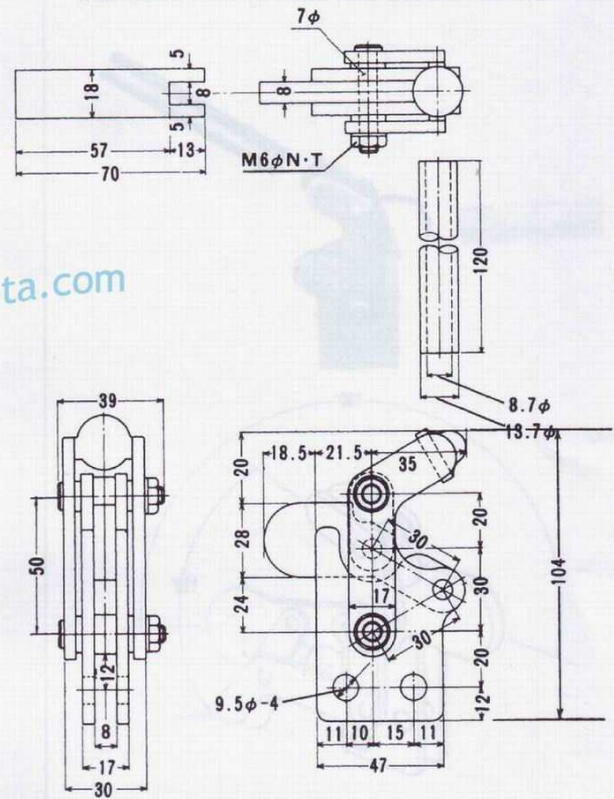




### VARI NO.1SB

W. 745g Holding capacity 200kg  
Raw Material :SS400

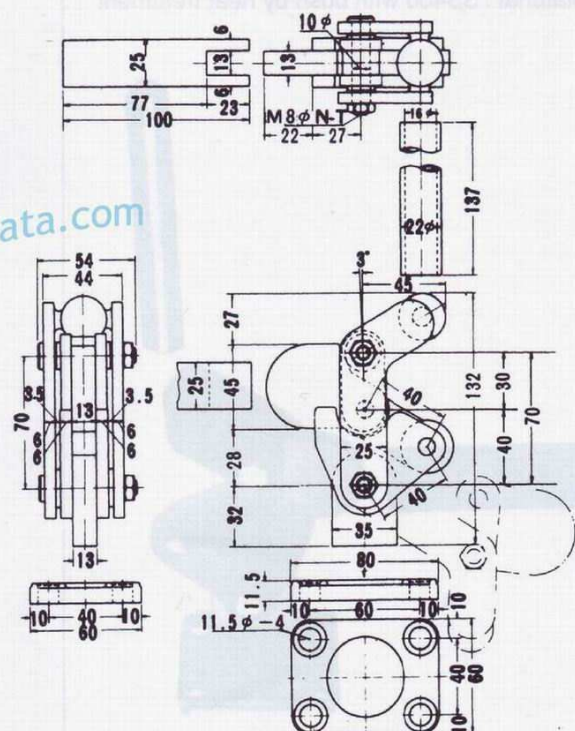
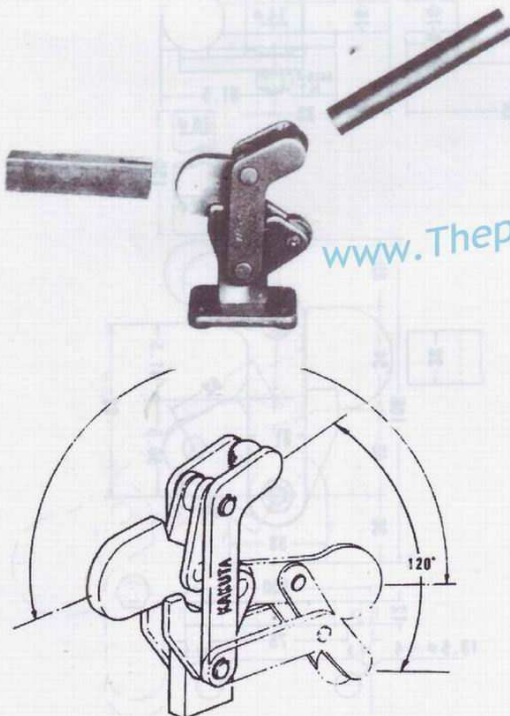
HANDLE MOVES.....116°  
BAR MOVES.....187°



### VARI NO.2

W. 2,130g Holding capacity 500kg  
Raw Material :SS400 with bush by heat treatment

HANDLE MOVES.....120°  
BAR MOVES.....190°

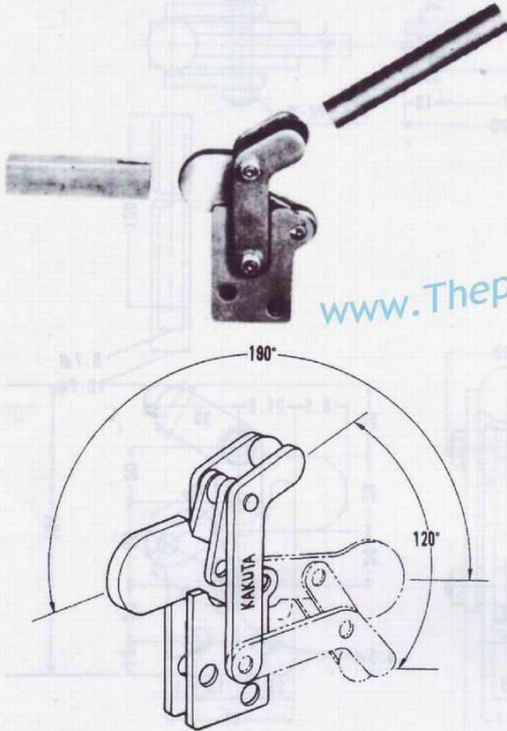




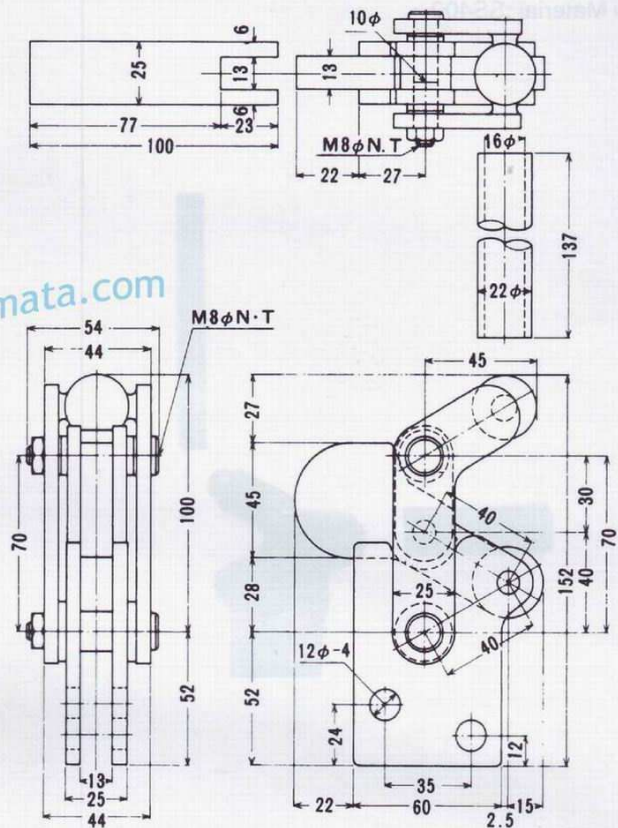
### VARI NO.2SB

W. 1,940g Holding capacity 500kg

Raw Material : SS400 with bush by heat treatment



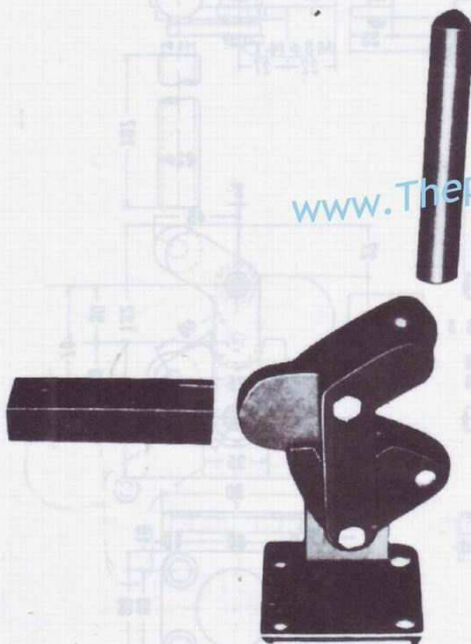
HANDLE MOVES.....120°  
BAR MOVES.....190°



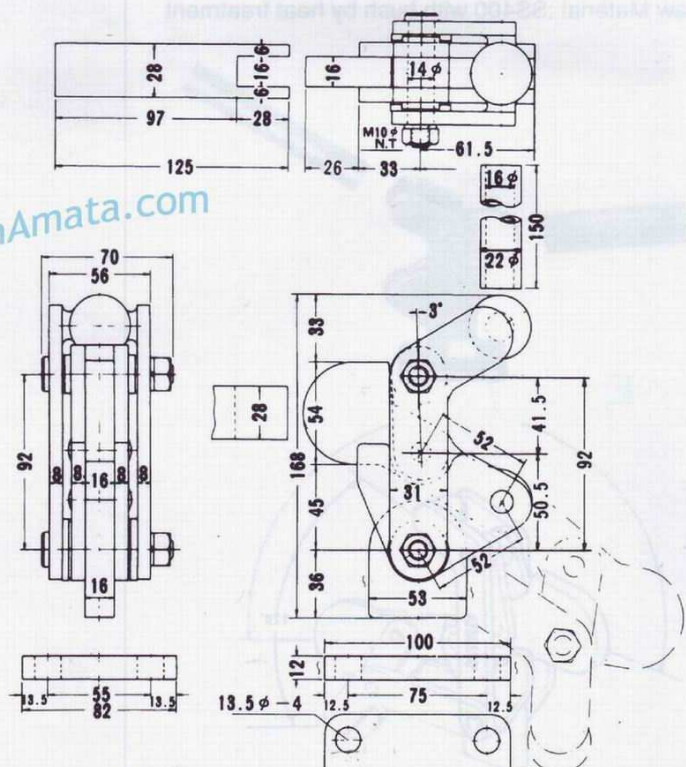
### VARI NO.3

W. 4,100g Holding capacity 1,00kg

Raw Material : SS400 with bush by heat treatment



HANDLE MOVES.....120°  
BAR MOVES.....190°

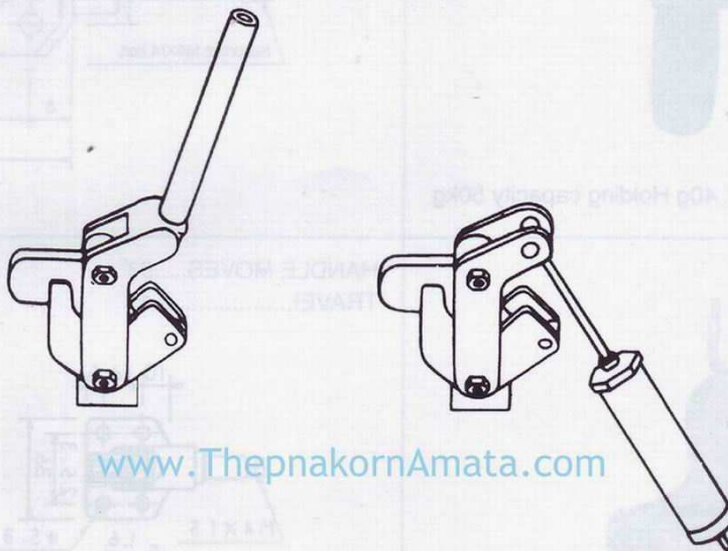
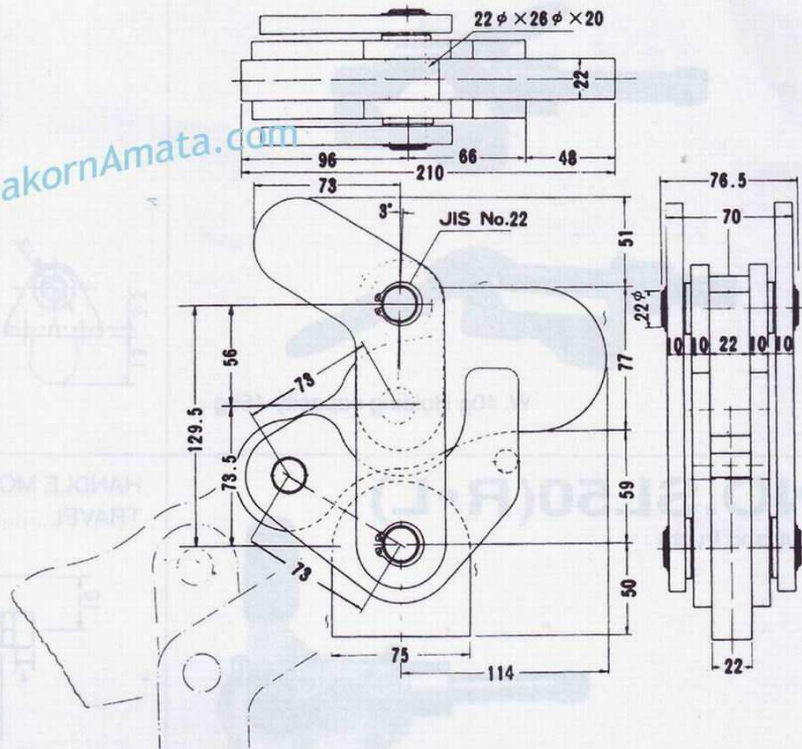




## VARI NO.4

W. 7,700g Holding capacity 3,000kg  
Raw Material : SS400 with bush by heat treatment

HANDLE MOVES.....122°  
BAR MOVES.....192°



- Vari-clamp No.4 is used for hand type, air type and oil type. It is available for any type by changing method of assembling.
- As vari-clamp No.4 is devised by laying stress on strength and durability, its maximum holding capacity is available by 3,000 kgs.