

# **TECHNO CUT AUTOMATIC CUTTER**

## **MAINTENANCE MANUAL**

***TAKAOKA***

# AUX. INFORMATION FOR TECHNO CUT

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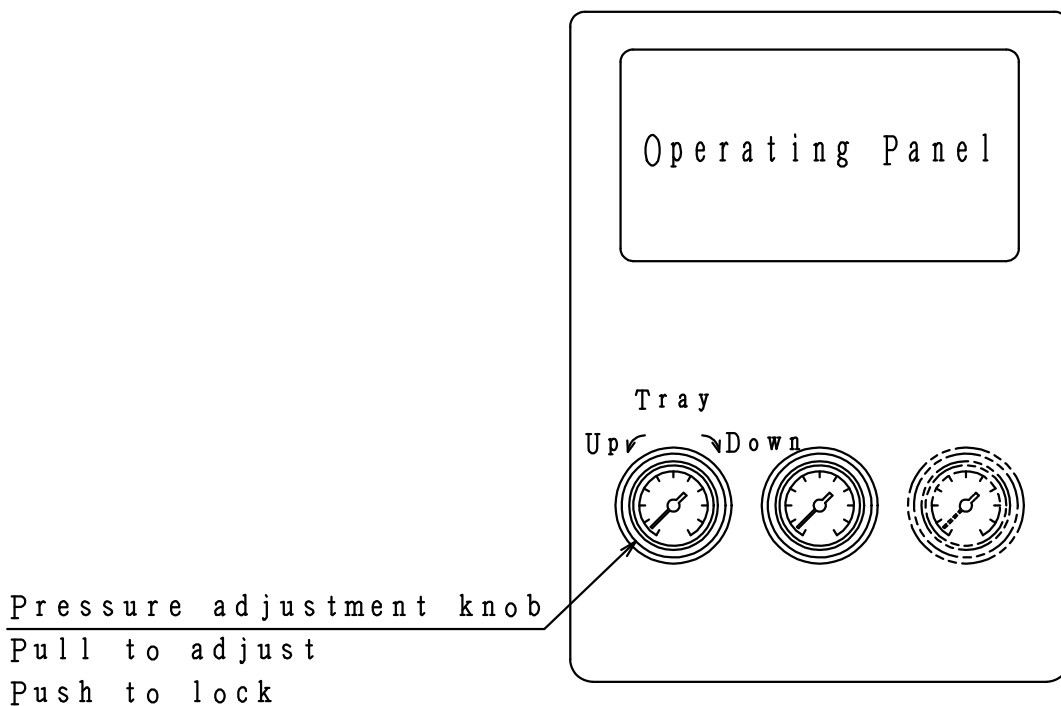
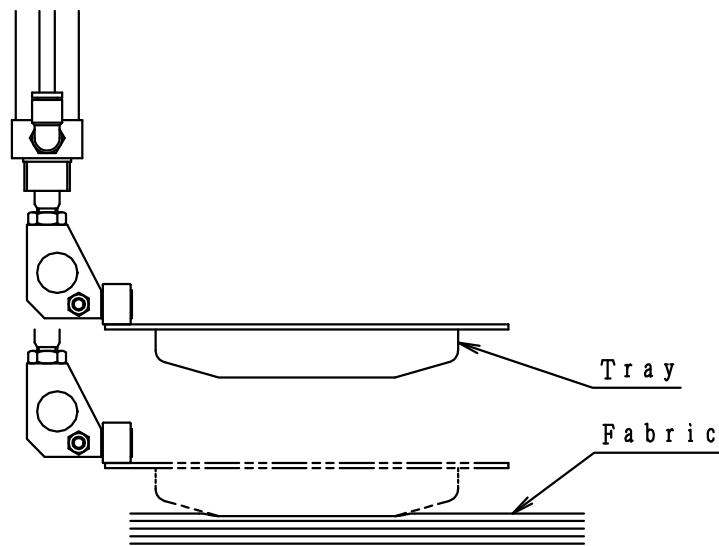
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## A. Tray-Down pressure adjustment

Adjust the tray lift up measurement depending on the material thickness to cut.

Try to repeat 'Knife down' and 'Knife up' a couple of times while keeping knife reciprocation.

1. Turn the pressure adjustment knob clockwise if the tray goes down up to the fabric surface.
2. Turn the pressure adjustment knob counter-clockwise if the tray goes down too much.
3. The best adjustment should be that the tray surface may softly touch or slightly press the fabric surface.



## B. Knife Replacement

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

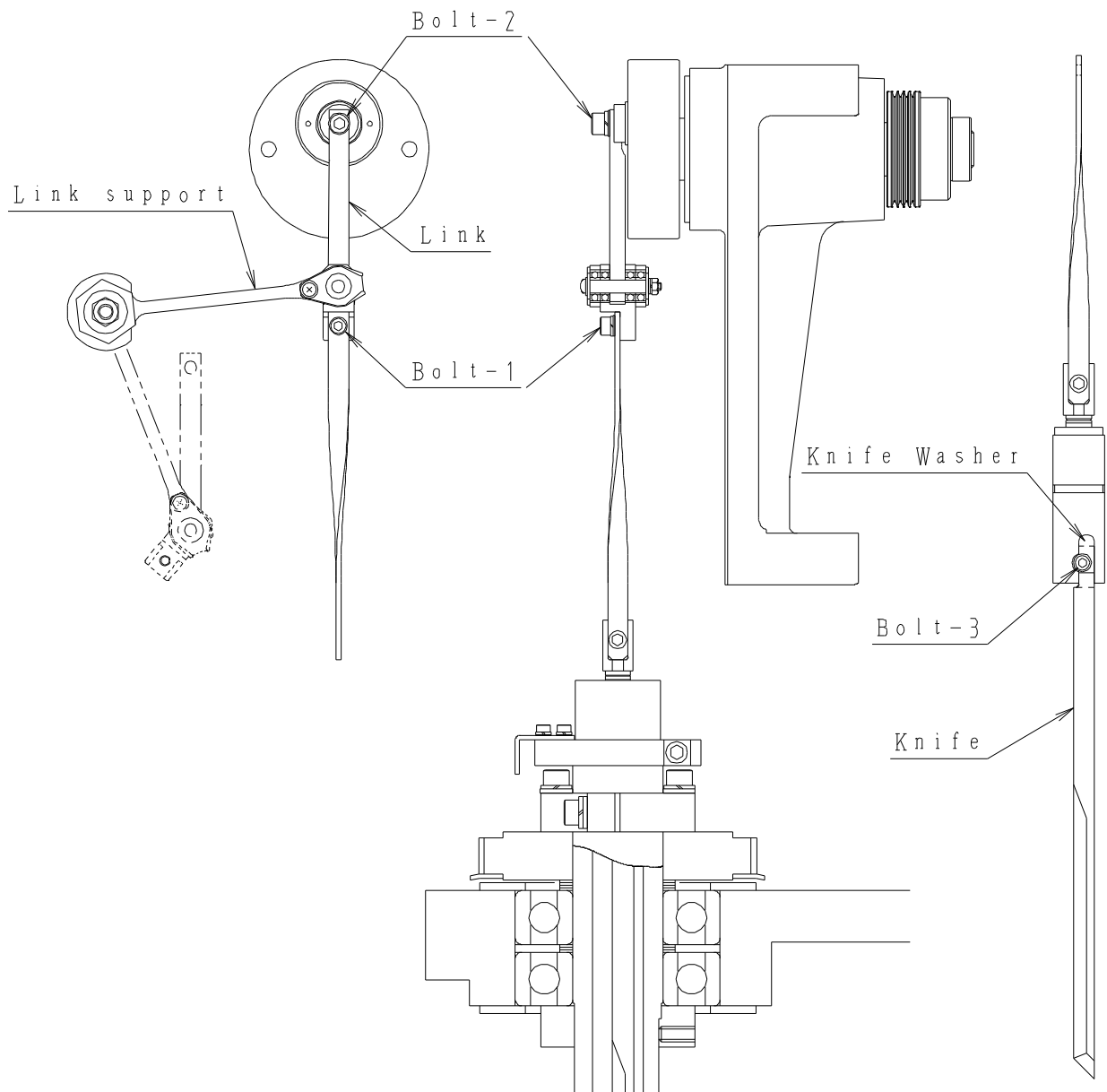
### Knife removing

1. Remove bolt-1.
2. Remove bolt-2. Link and Link Support will be free.
3. Lift up the knife to remove.
4. Loosen Bolt-3, and remove Knife and washer.

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NOTE: We supply spare knife holder. Every time you change knife, change knife holder also. If you use the same knife holder continuously, it may shorten the life.

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## B. Knife Replacement

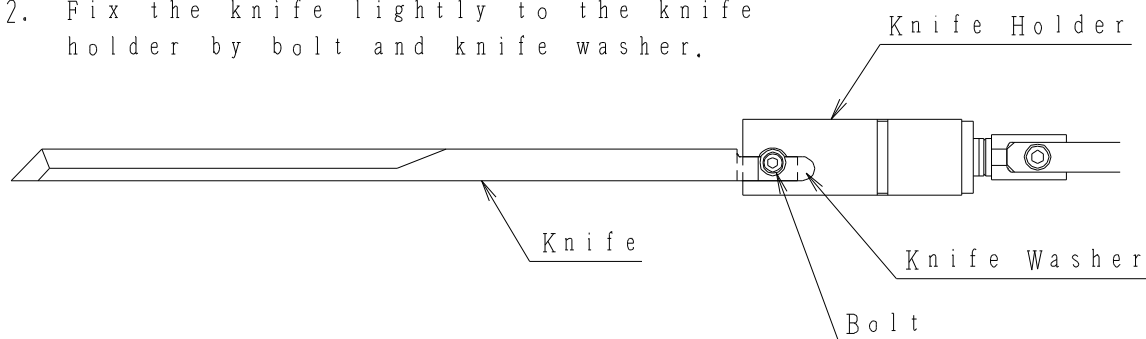
(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

### Mounting knife

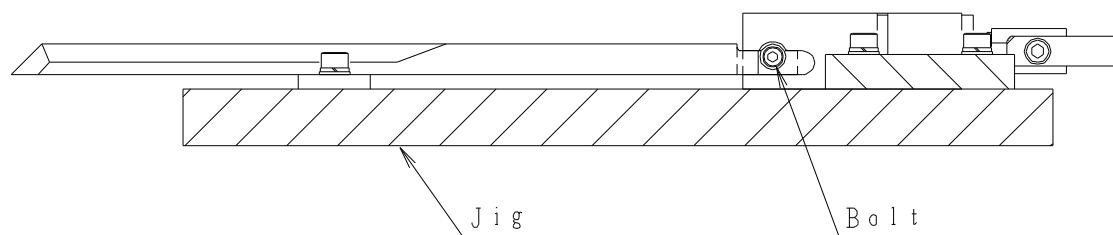
1. Sharpen the knife tip well with oil-emery stone.



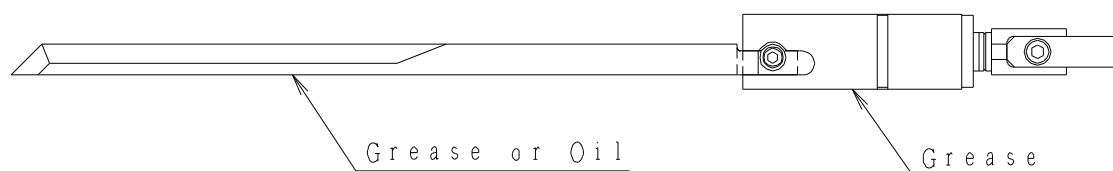
2. Fix the knife lightly to the knife holder by bolt and knife washer.



3. Place the knife with holder onto the jig we supplied, and tighten the bolt firmly after making the knife and the holder is totally flat against the jig.



4. Give a small amount of grease or oil on the back of the knife.
5. Give grease to the knife holder.



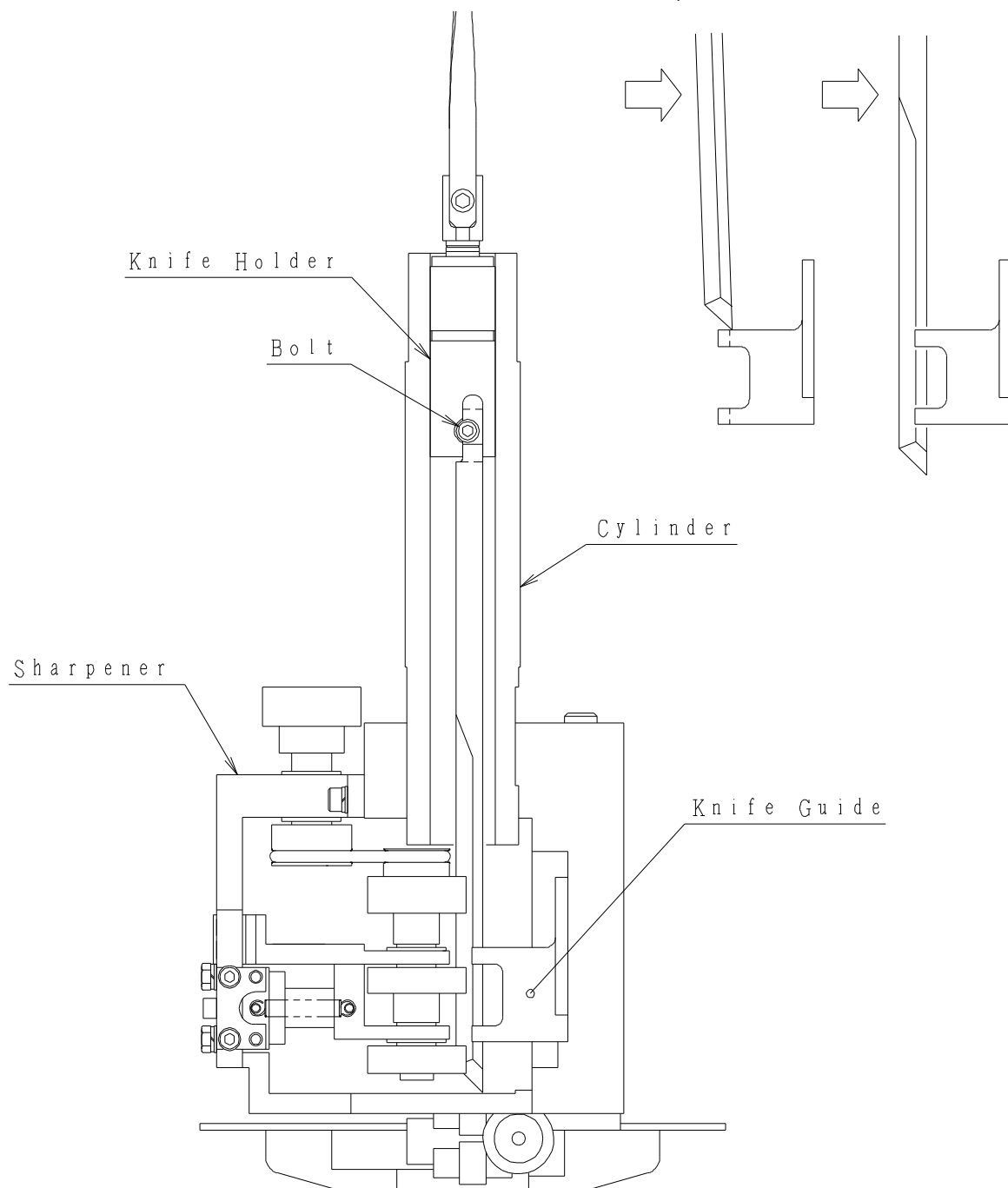
## B. Knife Replacement

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

### Insert to the Cylinder

1. Turn the sharpener so that the knife guide may look like the illustration when you see from the operator side.
2. Making sure the knife bolt face to you (blade edge faces to the left), insert the knife into the cylinder.

Remark: When the knife tip hits the knife guide, tilt the knife to the right a little so that the knife may be inserted smoothly.

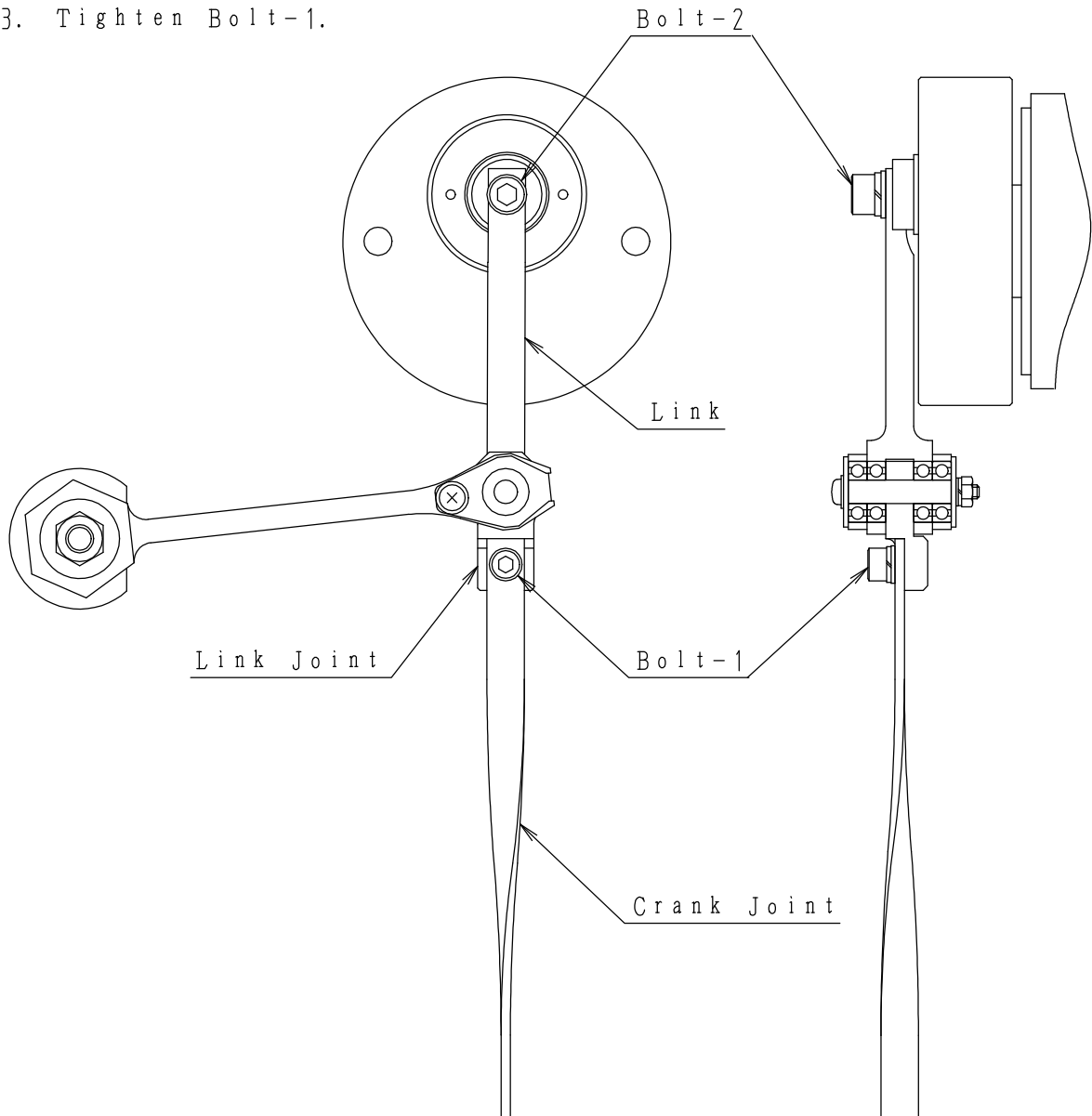


## B. Knife Replacement

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

### Fixing

1. Tighten Bolt-2 first.
2. Referring to the below illustration, set so that Link Link Joint and Crank Joint may be in line
3. Tighten Bolt-1.



Above completed the knife replacement.

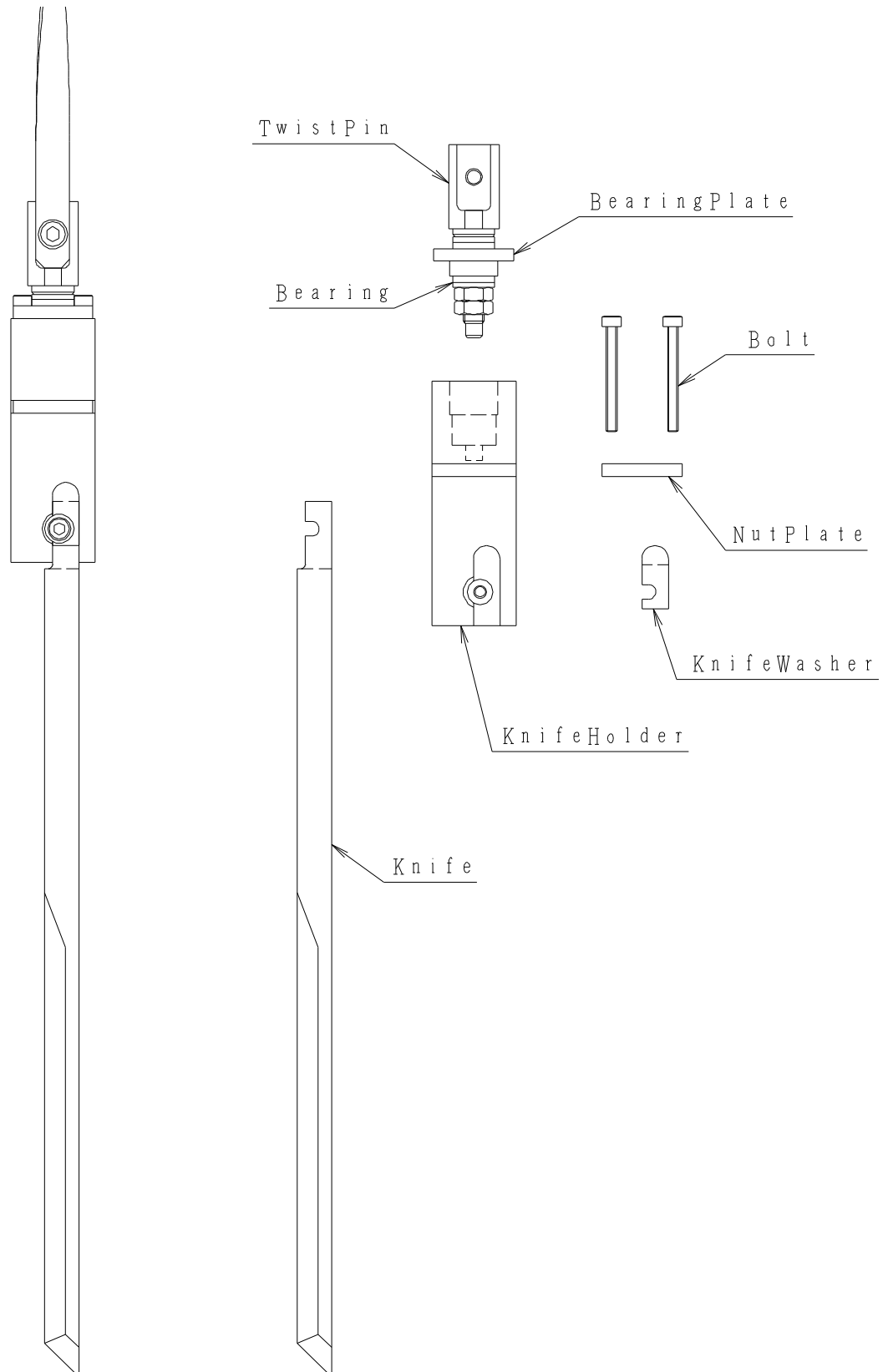
Note: Sharpen the knife at least 10 times whenever you replaced with new knife.

Note: Suggest you replace with a new knife when the knife width became 6mm (The system give the knife replacement message on LCD panel when the knife width became 6mm)

## B. Knife Replacement

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

### Knife & Knife Holder Assembly

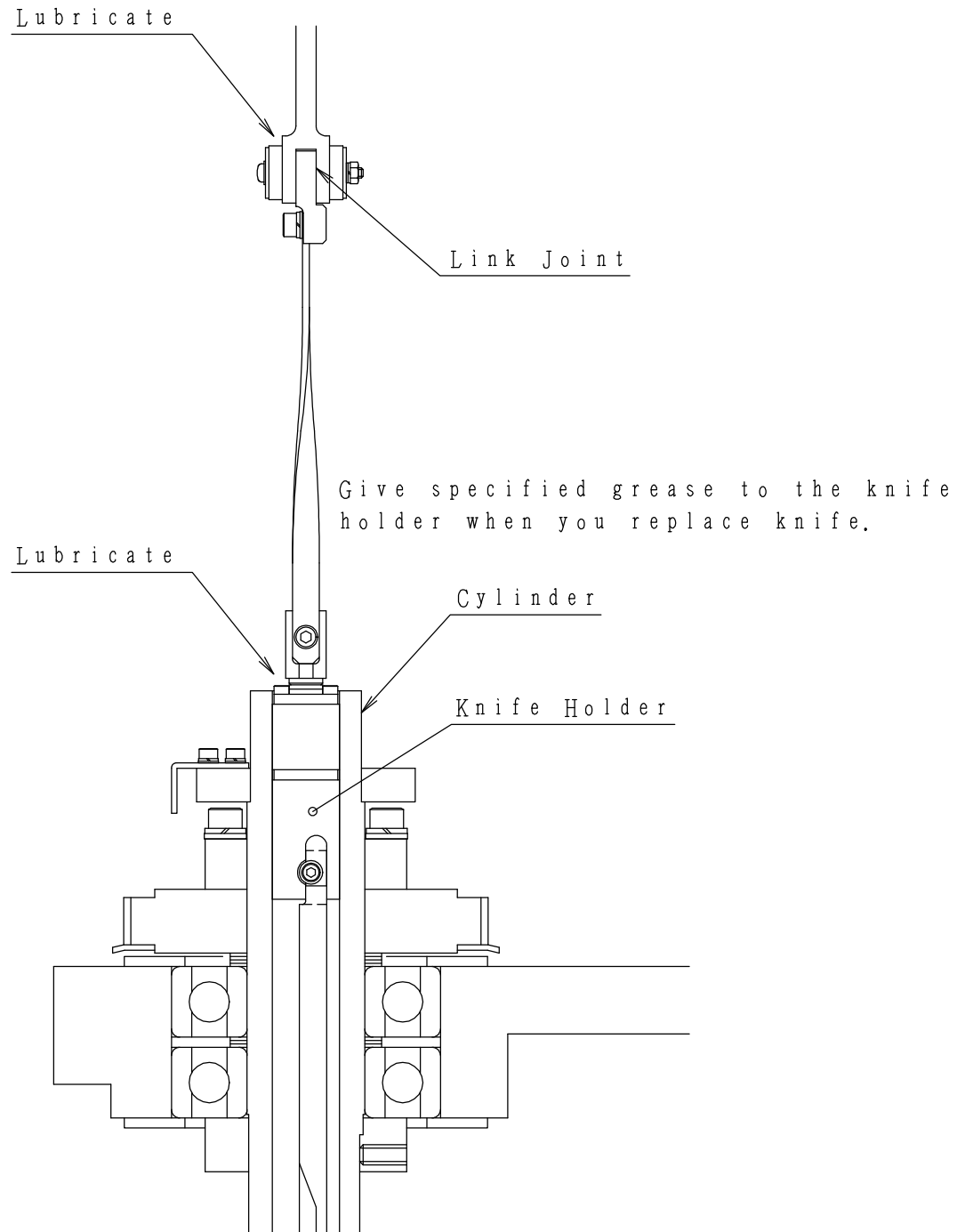




## C. Lubrication & Cleaning

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

### (1) Link Joint & Knife Holder & Cylinder

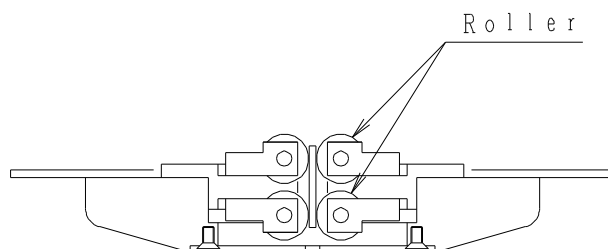
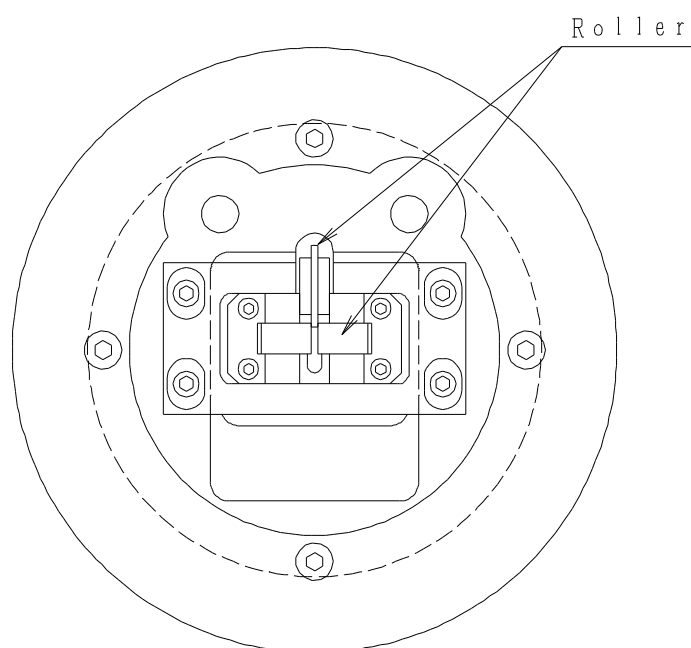


## C. Lubrication & Cleaning

(This has to be perform  
AFTER SWITCHING OFF MAIN POWER)

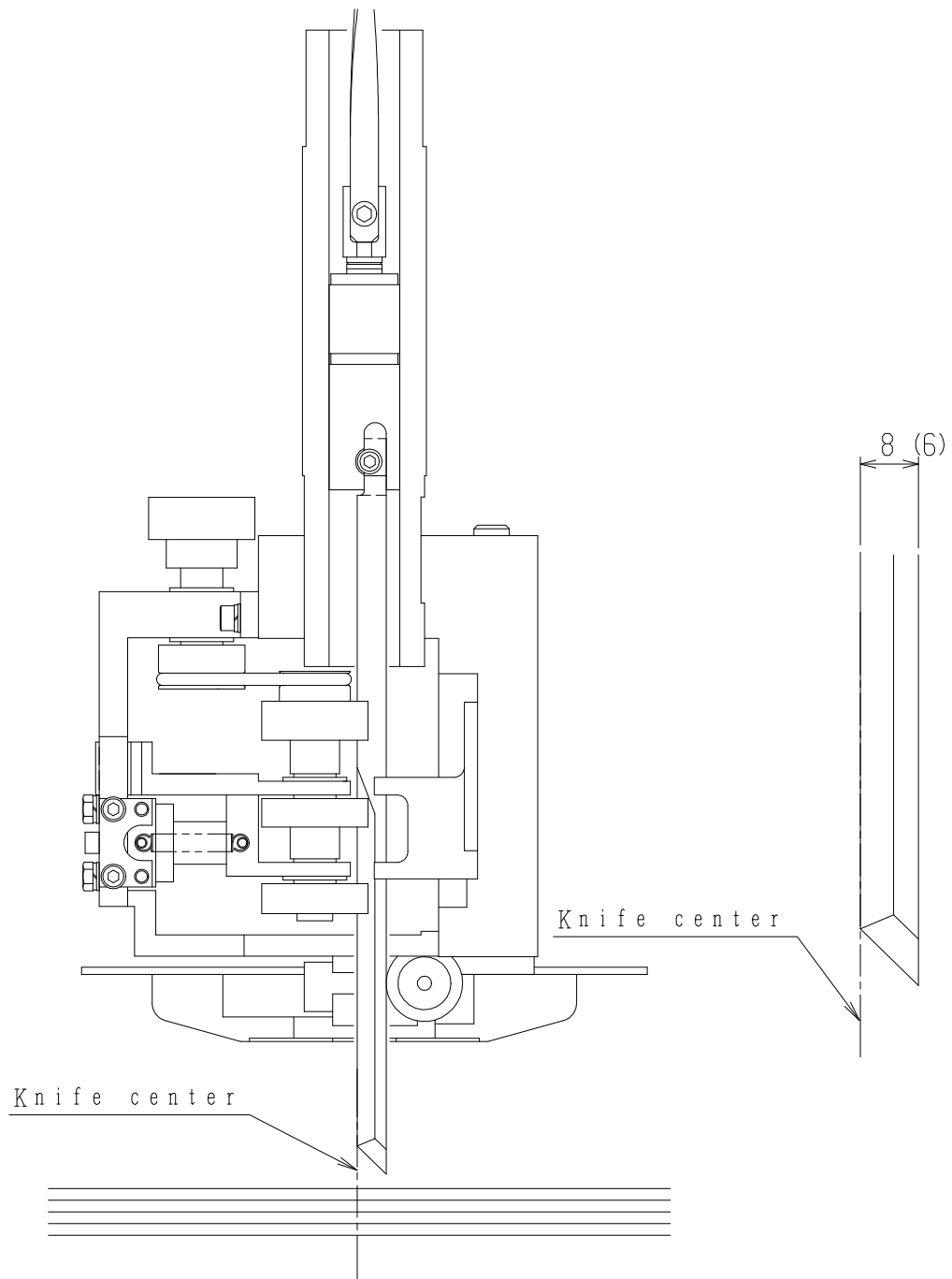
### (2) Guide Roller

Blow dust, lint etc. off the guide roller once in  
a day by using compressed air gun.



## D. Notch, Over-cut, Heel-cut

1. Brand new knife width is 8mm (There is a case of 6mm)
2. Knife center (Mechanically and from data) is located at the blade edge.
3. Accordingly, when you plunge the knife, you may have 8 (6) mm heel-cut.
4. If you specify the notch depth at 5mm, for example, you may have 3 (1) mm heel-cut and 5mm notch cut.
5. Techno Cut Auto Cutter is designed to get your specified Over-cut and Heel-cut.



## E. Sharpener adjustment

At the time of the shipment of Techno Cut Auto Cutter, it is adjusted so that the sharpener sharpens the knife for approx. 0.2 seconds.

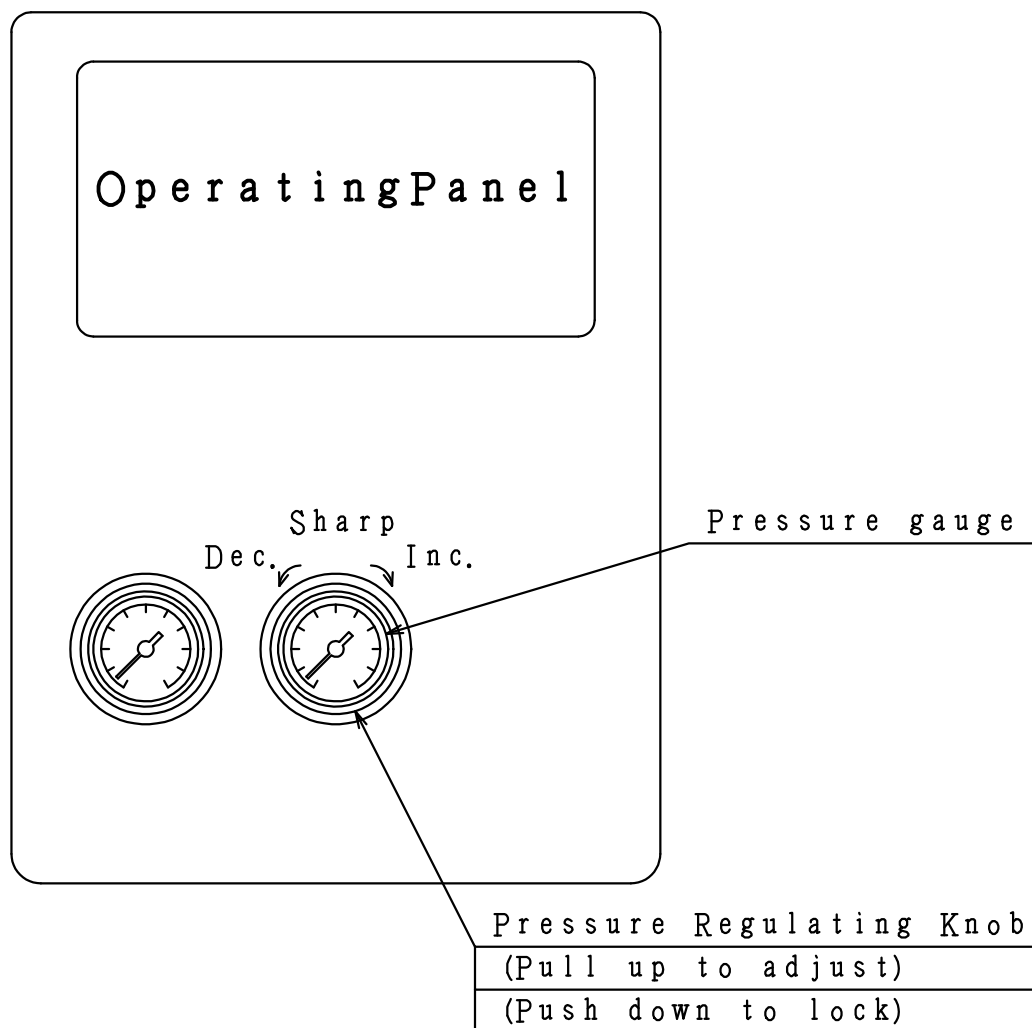
Sharpener pressure can be adjusted by regulating air pressure adjustment knob and air pressure gauge.

Pressure can be increased by turning the knob clockwise after pulling the knob upward.

Pressure can be decreased by turning the knob counter clockwise after pulling the knob upward.

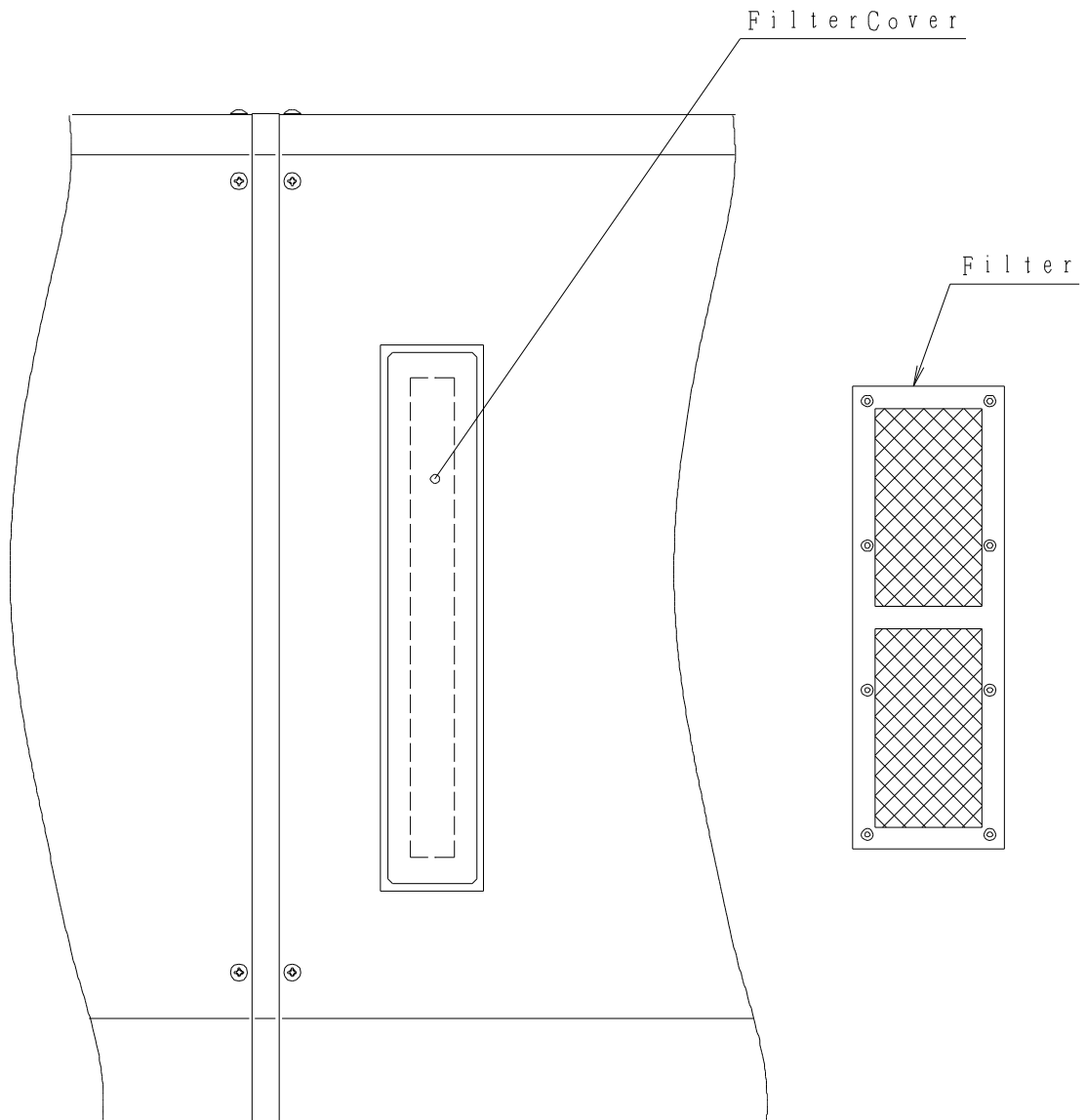
To lock the pressure after adjustment, push the knob down.

Air pressure is regulated at  $1.8 \sim 2.0 \text{ kg/cm}^2$  at the time of shipment.



## F. Vacuum Filter Cleaning

Air filter is mounted on the non-operator side.  
Clean up the air filter at least once in a shift, or  
once in a day depending your operation.  
The dust accumulated on the filter may reduce the  
vacuuming power, which may cause cut quality problem  
on the bristle table.

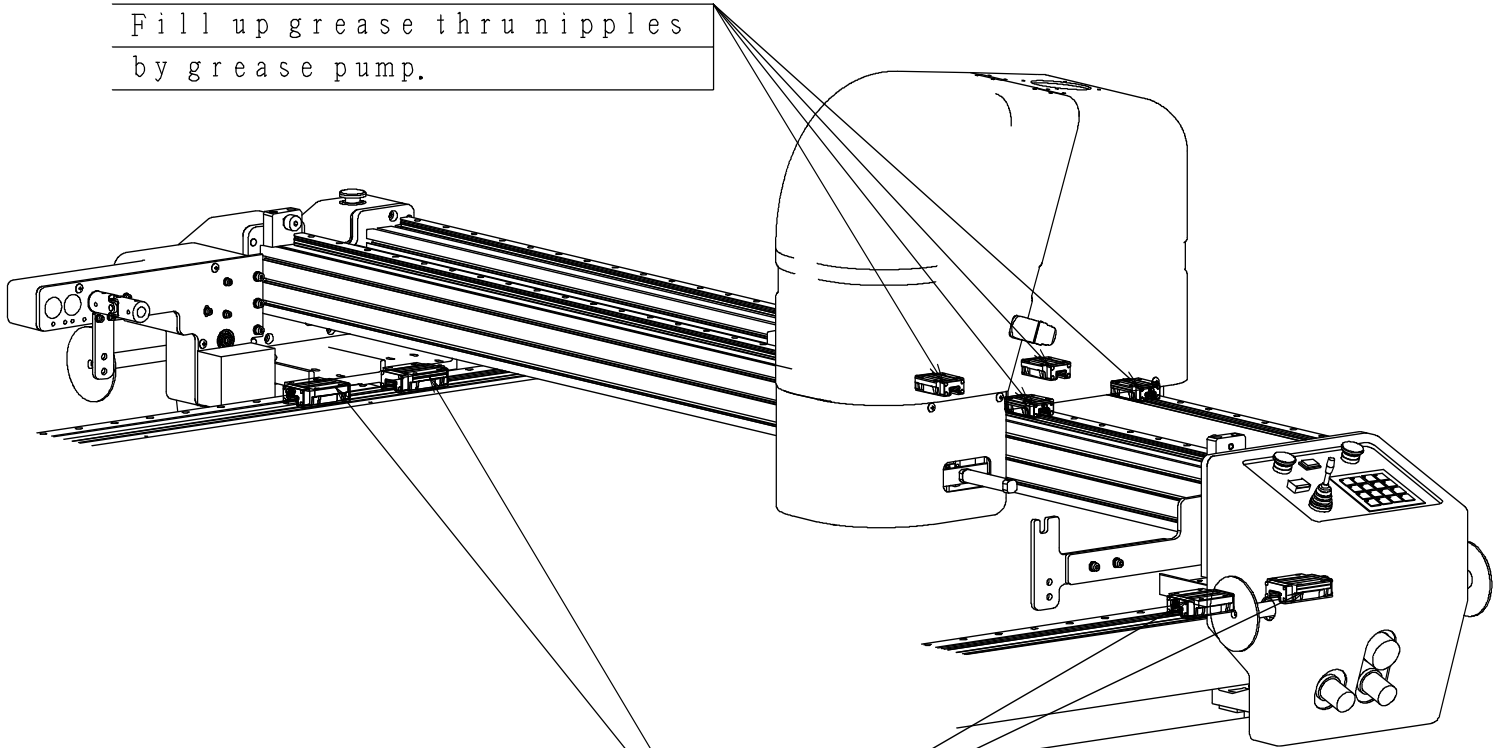


Note: When the Techno Cut Cutter is equipped with optional  
Bristle Cleaner, Clean up the air-filter every after  
you clean up the bristle by the Bristle Cleaner.

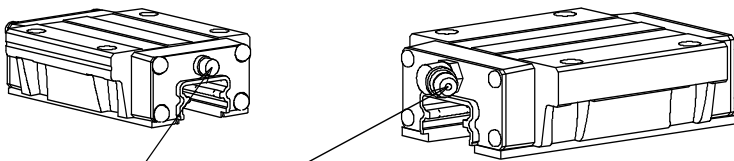
## G. Greasing to the slide blocks

Recommendable semi-annually.

Y axis slide blocks,  
Fill up grease thru nipples  
by grease pump.



X axis slide blocks.  
Fill up grease thru nipples  
by grease pump.

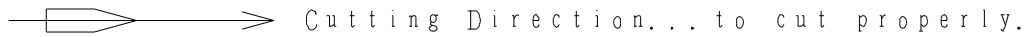


### X/Y Slide Blocks

Fill up fresh grease thru nipples by greasing pump or exclusive nozzle (available as option) until the old grease comes out. After filling up, try to move the cutting bridge/head right and left or up and down several time to lubricate. This pushes out some grease, and please wipe those excessive grease off the machine before running machine for cutting.

## H. Z axis Origin adjustment (1)

- Z axis Origin adjustment means that knife shaft should be adjusted so that the knife edge may face to the cutting direction properly.



- Z axis Origin can be achieved by the alignment of the knife block, the proximity sensor, and the sensor reflector.

- Z axis Origin is properly adjusted by the factory prior to the shipment, and this job may not be required, however when required, please do it according to the following instruction.

- Checking and adjustment of Z axis origin.

In the Maintenance Mode go to Motion Test.

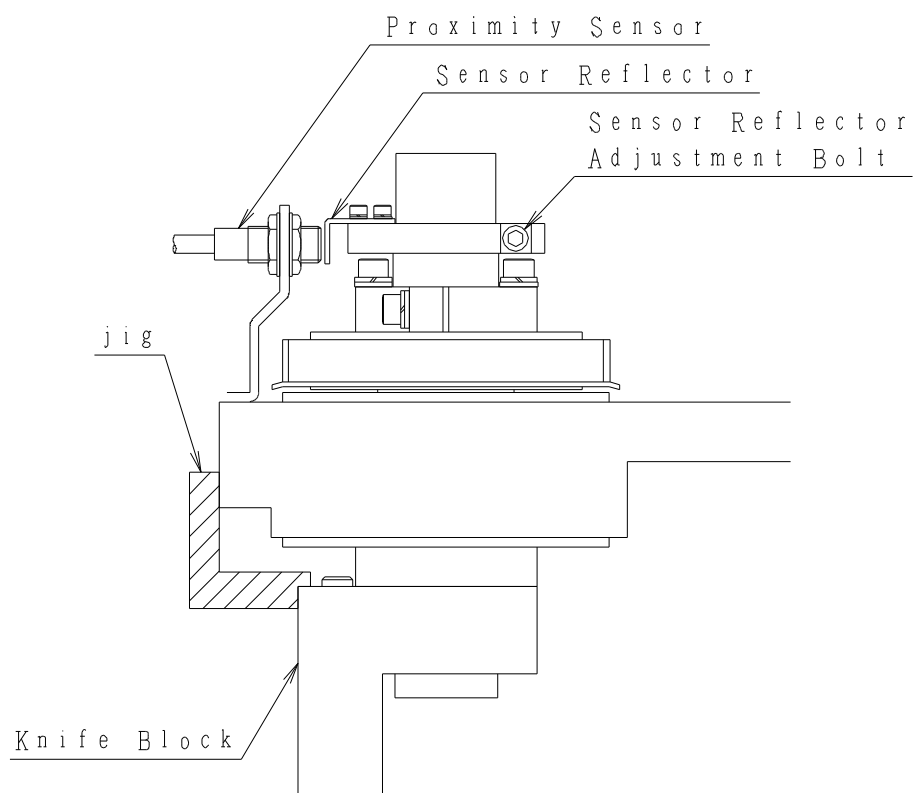
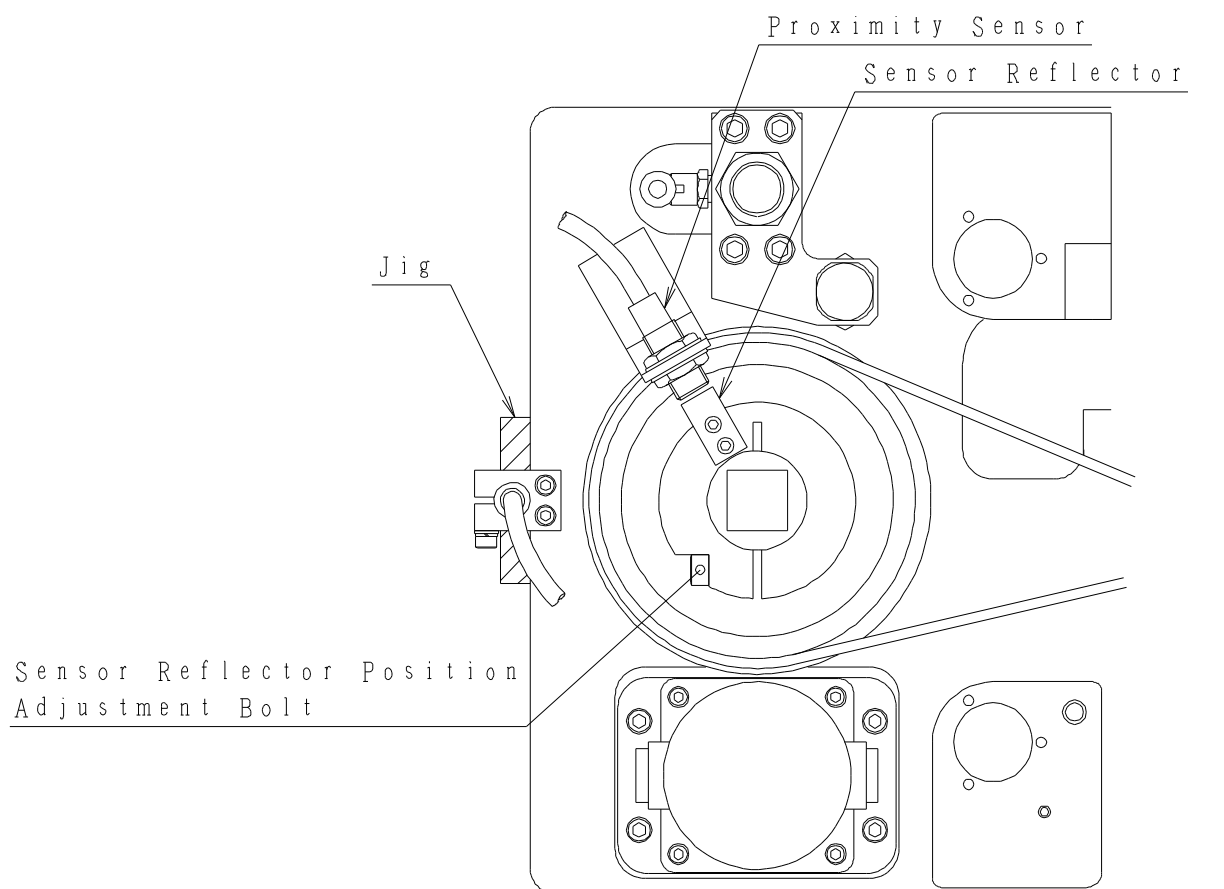
Touch Z AX. Origin once.

Check the adjustment by attaching the jig.

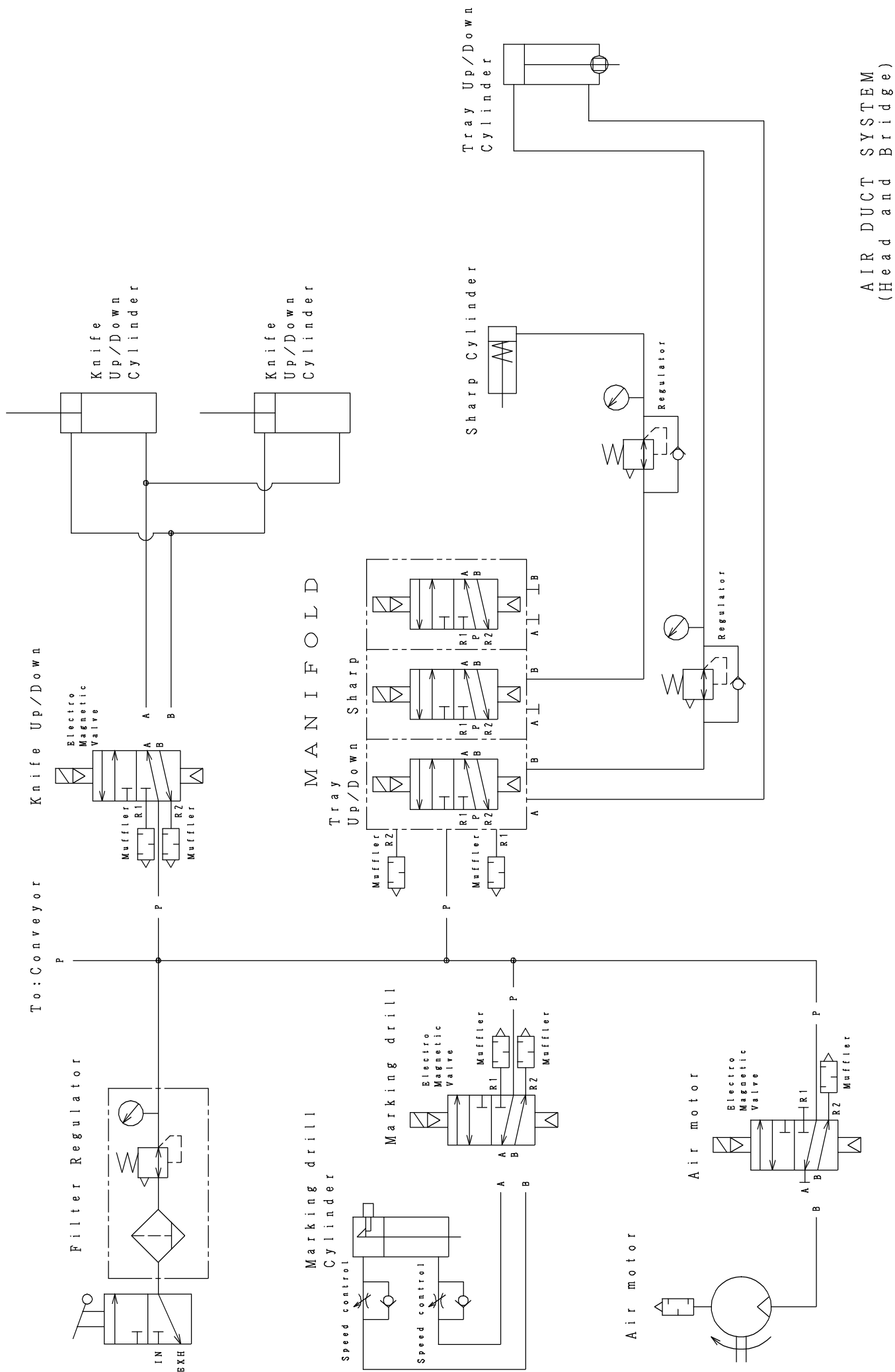
If it is not correct, loosen the sensor reflector adjustment bolt, change the position a little and lock it there.

Check the Z axis origin again, and repeat this job until the back side of the knife block may contact perfectly to the jig.

## H. Z axis Origin adjustment (2)







AIR DUCT SYSTEM  
(Head and Bridge)

# TAKAOKA TECHNO CUT AUTOMATIC CUTTER

## Standard Specification

### Model TC-70

Application	Cutting of fabric sheet such as for clothing.
Vacuum blower	Mounted under the pick up table. 200/220V(3Ph.) 11Kw×1 Units = 11Kw (8Kw×2 Units = 16Kw)
Cutting function	Max.cut height 70mm under vacuum compressed Drive Servo motor/timing belt Drive guide Linear way Dry haul speed 40m/min. Cut speed 0~30m/min. Max. conveyor speed 20m/min. (fixed at 5m/min for advance)
Knife	Drive Reciprocation R.P.M. 0~4500rpm
Operation panel	SW panel and air regulator knobs.
Air-reseal	Reel to follow bridge drive.
Power	200/220V 3-Ph.15(20)kw.
air pressure	100litter/min. at 0.5MPa.
Environment	Temperature :0~35℃ Humidity :80%(No condensing)
Supplier' s responsible area for installation	1) Delivery & Installation. 2) Wiring to the Techno Cut control board. 3) Machine function check and operation training.
Standard accessories	10 spare blades 1 sets of maintenance tool in a box
Consumables	Blades Over-lay plastic sheet Under-lay paper
Customer' s responsible area for installation	1) Ground work required for the system installation, and safety operation. 2) Power supply (cubicle to machine control and blower units. 3) Compressed dry air pressure supply.



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