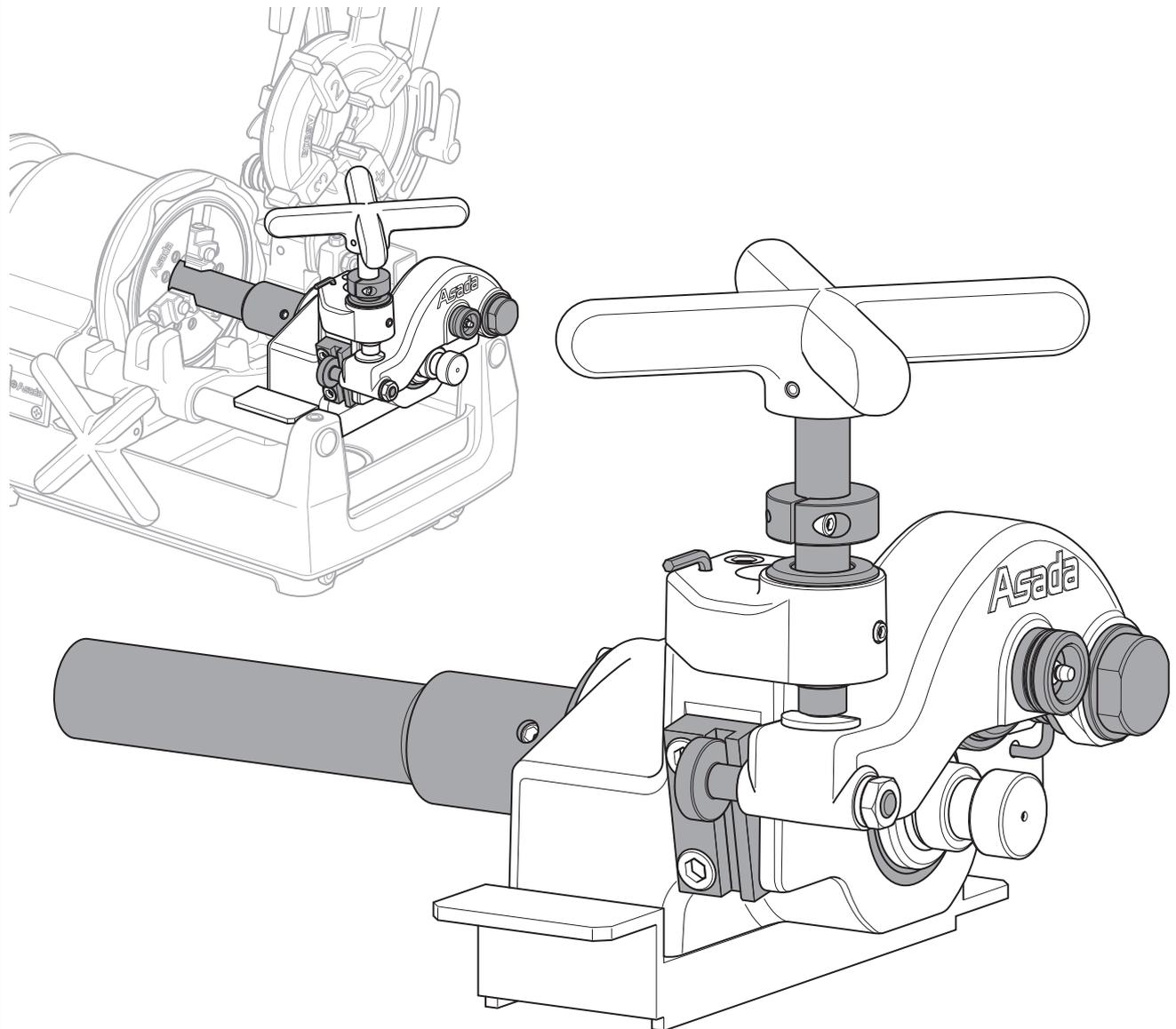


# Asada

Portable Roll Groover

# ROLL GROOVER 640

## INSTRUCTION MANUAL



[Read through this manual carefully before using the machine]

# ROLL GROOVER 640

## SAFETY PRECAUTIONS

Thank you for choosing our ROLL GROOVER 640.

- This Instruction Manual must be retained by the user of this machine.
- Read the Instruction Manual carefully and completely before use and thoroughly understand the usage, capacity, cautions, and easy repairs for correct operation.
- Handle the machine properly to make full use of its functions for safe work.
- After reading the instructions, save this manual for rereading it when necessary.
- Use the machine for the intended application only. It will do a better job and be safer at the rate which it was Designed for.
- Upon receiving the machine, check the following.
  - Check that the machine is built conforming to the specifications stated in your order.
  - Check the overall machine for any damage or deformation caused in transit due to accidents or other reasons.
  - Check that all items and accessories delivered.

In case if any discrepancy is found, immediately report the fact to the shop you purchased or our sales office. (The contents of this manual are subject to change without prior notice.)

## CLASSIFICATION OF CAUTIONS

Precautionary signs are classified into the following 3 levels.



**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

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## CAUTIONS IN USE

- To prevent accidents such as fire, electrical shock and injury, always follow the "SAFETY INSTRUCTIONS" described below.
- Before using the machine, read all "SAFETY INSTRUCTIONS" to use it correctly according to the instructions.
- After reading the instructions, save the manual so that you can read it when necessary.

### DANGER

- ◆ Always ground the machine to avoid electric shock or resultant death.
- ◆ Do not touch the plug with wet hands.
- ◆ Do not expose the machine to rain and water and do not use it in damp or wet locations. Humidity will deteriorate motor insulation or lead to electric shock.
- ◆ Immediately replace Power Plug, Power Cord or extension cord, if damaged.
- ◆ Do not hold Power Cord and pull it to disconnect from the receptacle, and do not put the machine on the cord and damage it.
- ◆ An extension cord should have a three-core cable with an earth wire. Use a thick and durable cord for outdoor use.
- ◆ The Workpiece will rotate during working. Loose clothing can get easily tangled into moving parts.

### WARNING

- ◆ Always use the machine at the voltage indicated on Machine Plate. Otherwise, the machine may become hot, emit smoke or catch fire.
- ◆ Do not force the machine in a manner that the motor stops.
- ◆ Never install an earth wire to the gas pipe. If attempted, explosion may take place.
- ◆ Do not use the machine in the presence of flammable liquids or gases such as gasoline and thinner. Otherwise, ignition or explosion may occur.
- ◆ Always wear gloves when replacing repair parts.
- ◆ When it is required to touch the rotating parts for replacement, etc., switch off the machine and unplug it before starting the operation.
- ◆ Before plugging the machine in, always make sure that the switch is OFF. If the machine remains plugged in, it will start suddenly, leading to unexpected accident or injury.
- ◆ During operation, keep your hands and face away from the moving parts. You may be caught in the moving parts, causing injury.
- ◆ Do not wear neckties, open-sleeved clothing, loose clothing or jewelry (such as necklaces). Otherwise, you may get caught in moving parts.

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## WARNING

- ◆ Wear caps or hair covers to protect long hair. Otherwise, you may get caught in moving parts.
- ◆ When not in use or process under cleaning, checking or replacing parts, switch off and unplug the machine. If the machine remains plugged in, it will start suddenly, leading to accident or injury.
- ◆ Do not install the machine inclined or on unstable places. The machine falls down, causing injury.
- ◆ Keep proper footing and balance at all times. You may tumble and get hurt.
- ◆ Do not operate the machine when you cannot concentrate on your work, e.g. when you are tired or while under the influence of alcohol, medication or drugs. Otherwise, accident or injury may occur.
- ◆ Before turning on the machine, make sure that hand tools used for inspection or adjustment are removed from the machine. Accident or injury may occur if you start the machine with hand tools on it.
- ◆ Use only the accessories and attachments given in this manual and our catalogs. A failure to do so will lead to accident or injury.
- ◆ Do not carry out use of the work beyond capability and except specification.
- ◆ No men other than the people concerned are allowed to come close to a work place. Please be aware of children getting closer to the work place.
- ◆ Our products are in accordance with the relevant safety rules. Do not modify them.
- ◆ Immediately stop the machine if something is wrong with the machine or you have noticed unusual smell, vibration, sound, etc. during operation, and refer to "TROUBLE SHOOTING" in this manual and follow the corresponding instructions.
- ◆ Repairing should only be carried out by our sales representative. Otherwise the machine may not show its performance or you may get injured. Ask the shop of your purchase or our sales office.

## CAUTION

- ◆ Certainly fix by the Hammer Chuck of a threading machine.
- ◆ Do not bring a hand close to a roller during the rotation.
- ◆ It may get caught in moving parts.
- ◆ Do not operate a material less than 20cm.
- ◆ It may injury your finger.
- ◆ Do not put the machine or material on Power Cord. The cord will be damaged and current leakage will occur.

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## CAUTION

- ◆ Hold a material certainly using a Grooving Shaft and a pipe stand.
- ◆ If a material is 60cm or longer, be sure to use a pipe stand.
- ◆ Do not leave the machine with a long material set on it. You may tumble over it and get hurt.
- ◆ Securely install accessories in accordance with this manual. Otherwise, accident or injury may happen.
- ◆ Use the Grooving Roller and Grooving Shaft proper to a material size. As applicable material sizes are written on Grooving Roller and Grooving Shaft, please change them according to the material size.
- ◆ Materials should be attached properly. Set the material 0.5 degrees aslant against the machine. Make sure that the machine and material are parallel to the ground.
- ◆ Make sure that the material is not deformed or the surface of the material is not inclined. It may cause of a defective groove.
- ◆ Turn the handle at according to the following indicated speed.
- ◆ If handle is turned fast, the material may get deformed and cause of a damage to the machine.

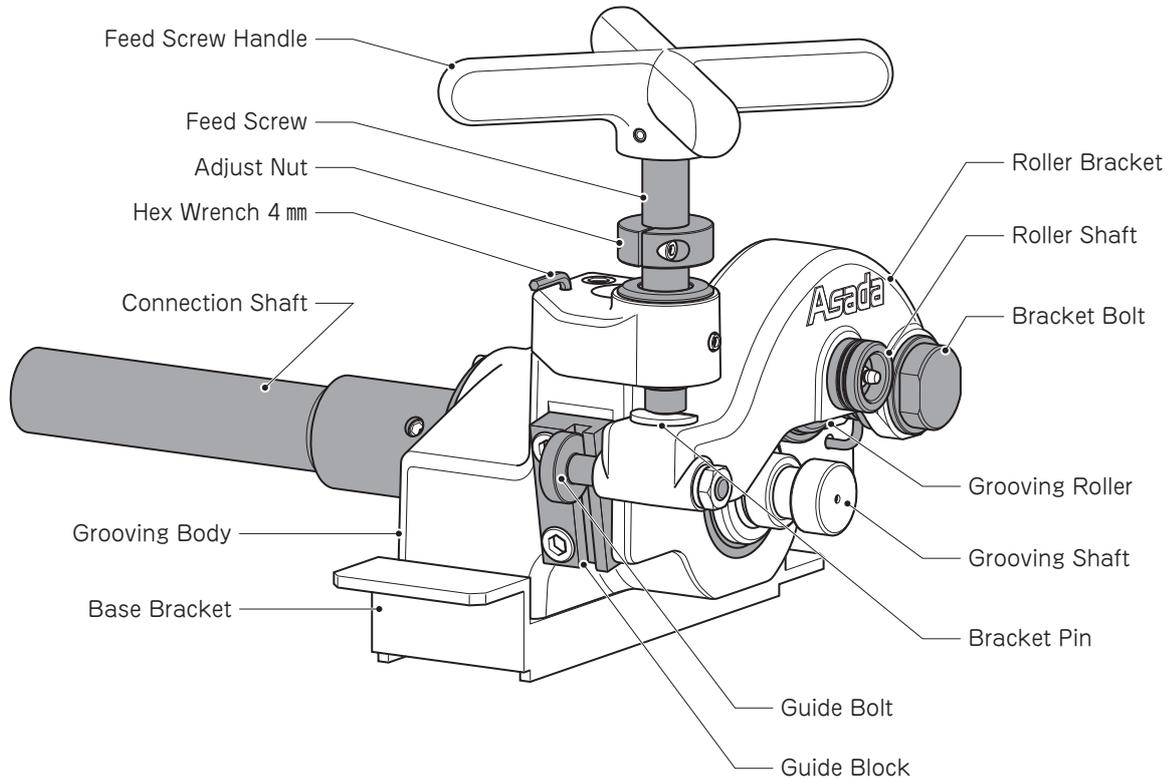
Handle rotation speed per 1 rotation of the material as follows		
Schedule 10 steel pipe	1"~ 6"	1/2 per rotation
Schedule 40 steel pipe	1"~ 4"	1/4 per rotation
	5"~ 6"	1/8 per rotation

- ◆ Base Bracket that matches to the Threading Machine must be used.
- ◆ Otherwise, it will not allow proper processing and may cause a damage to the machine.
- ◆ Make sure to check the dimensions after the operation.
- ◆ Make sure to polish the surface of the material by Sander and the surface of the seal after the operation. Chamfering the pipe is required as well as they may cause a leakage or a damage to the gasket.
- ◆ Check the machine carefully whether or not it has a damage before using and make sure that it will operate properly and perform its intended function.
- ◆ If you have dropped or hit the machine accidentally, carefully check for damage, crack or deformation. If the machine is damaged, it will work with a poor accuracy and cause an accident and injury.
- ◆ Before leaving the machine for a long time, disconnect Power Plug.
- ◆ Keep your workbench and area in order and well-lighted.
- ◆ When the machine is not in use, it should be stored in dry and high or locked-up place which children cannot reach out.

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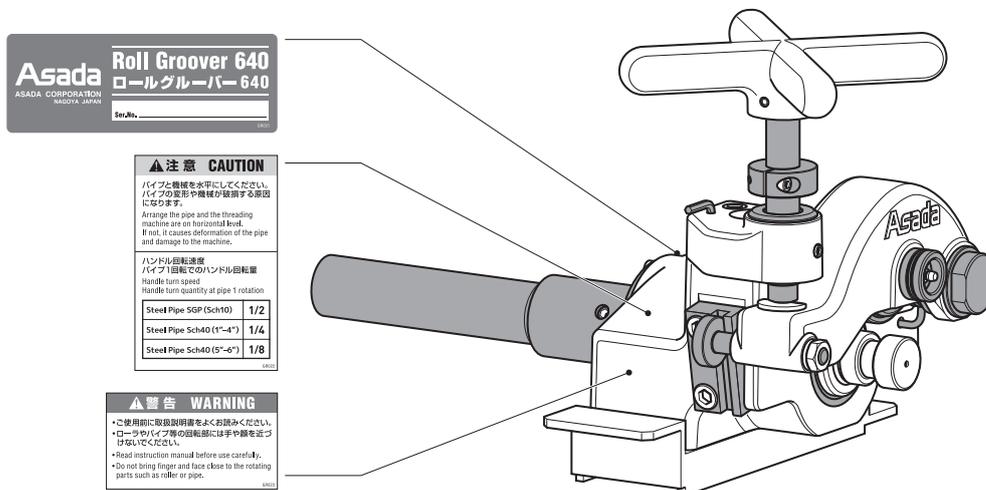
## COMPONENTS OF THE MACHINE

### Main Parts



### WARNING LABEL

※ Warning labels are attached on the units. Instruction for safety operation is written on the label, so please contact us when the labels get dirty or come off and difficult to read. Furthermore, please reattach the labels on the same place.



# ROLL GROOVER 640

## Specifications

Description	ROLL GROOVER 640	
Code.No	GR640	
Capacity	Schedule 10 Steel Pipe	1" ~6"
	Schedule 40 Steel Pipe	1" ~6"
Standard Capacity	Schedule 10 Steel Pipe	2" ~6"
	Schedule 40 Steel Pipe	2" ~6"
Weight	12kg(Except Base Bracket and Connection Shaft)	
Size	L : 280mm × W : 260mm × H : 250mm	

※Specifications are subject to change without prior notice.

## Standard Accessories

Code No.	Description	QTY
GR024	Connection Shaft	1
GR020	Depth Gauge	1
80178	Hex Socket Bolt M8x25L	4
81114	Spring Washer 8	4
86001	Hex Wrench 3mm	1
86002	Hex Wrench 4mm	1
86003	Hex Wrench 5mm	1
86004	Hex Wrench 6mm	1

Code No.	Description	QTY
GR025	Warning Notice	1
IM0467	Instruction Manual	1
86090	Tool Bag	1
GR103	For BE50	Base Bracket (1set is attached for the specified model.)
GR104	For BE80	
GR105	For BE100	

## Optional Accessories

Code No.	Description
59920	Pipe Support ※In case of using a threading machine on table (220mm).
S780390	HD PIPE Jack Ball L ※In case of using a threading machine with legs.
S781315	PIPE Jack Ball L ※In case of using a threading machine with legs.
S781945	Vetsa Level (Level)

Code No.	Description
GR028	Roller Shaft Set 1"
GR031	Roller Shaft Set 1 1/4" -1 1/2"
GR033	Roller Shaft Set 2" -6"
GR103	Base Bracket for BE50
GR104	Base Bracket for BE80
GR105	Base Bracket for BE100
BE687	Leg / Holder Complete For BE50
BE906	Leg Complete For BE80/For BE100

# ROLL GROOVER 640

## PREPARATIONS

### Preparing for Threading Machine

#### ⚠ WARNING

- ◆ **Always ground the machine.**  
It may cause a trouble or electrical shock.
- ◆ **Do not install the machine inclined or on unstable places.**  
The machine may fall down and cause a serious injury.

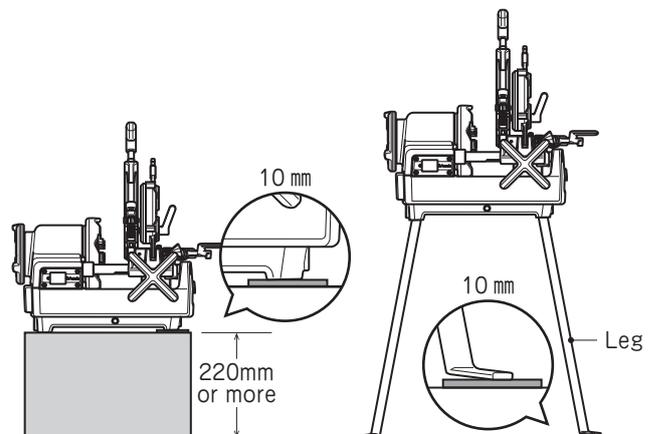
#### ⚠ CAUTION

- ◆ **Upper the tank side of the Threading Machine by 10mm to make it horizontal.**
- ◆ **Leaving it inclined may cause a damage or defective groove.**

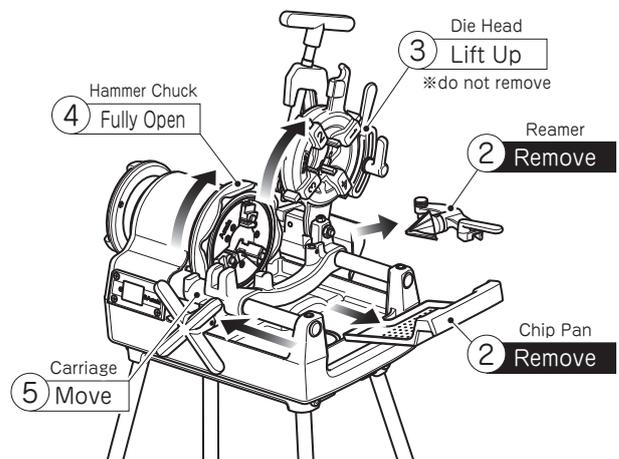
□ Secure a sufficient space around the machine. A wide space is necessary particularly when working with a long and heavy material.

- ① Set the Threading Machine on flat surface and adjust the height of the machine.

The tank side of the Threading Machine is designed to be inclined. Please upper the tank side of the Threading Machine by 10mm and adjust to make it horizontal when using the unit.



- ② Remove Chip Pan and Reamer.
- ③ Lift up Pipe Cutter and Die Head.  
Do not remove Die Head. Otherwise cutting Oil will gush during the operation.
- ④ Open Hammer Chuck fully.
- ⑤ Turn Rack Handle and move the Carriage to Hammer Chuck side.



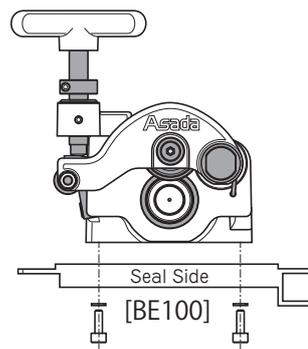
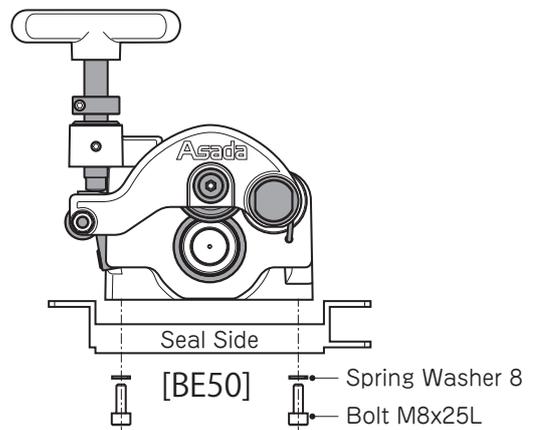
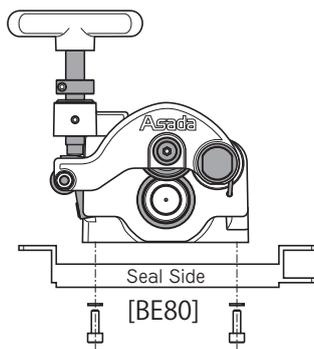
# ROLL GROOVER 640

## Preparation Before Operation

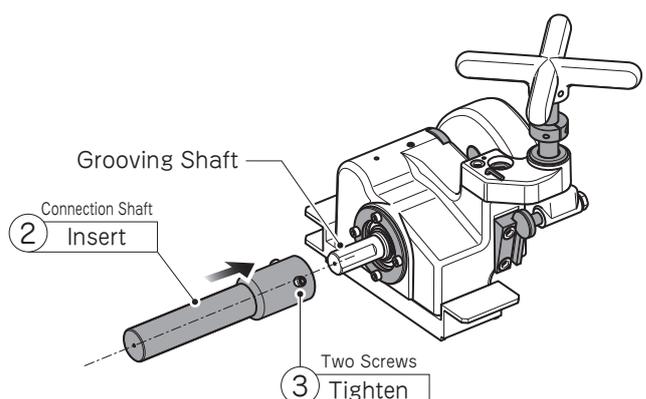
### ⚠ CAUTION

- ◆ **Base Bracket that matches to the Threading Machine must be used.**  
Otherwise, it will not allow proper operation and may cause a damage to the machine.
- ◆ **Install Base Bracket as the seal side comes in front.**  
Installing the opposite side may cause of overload and damage the machine.
- ◆ **Tighten a screw of Connection Shaft to a flat surface.**  
To prevent from loosening and unstable rotation during the operation.

- ① Attach Base Bracket to Grooving Body.  
Fix them by using Hex Socket Bolt M8 x25L and 4 pcs of Spring Washer 8 in the standard accessories. Required Base Brackets are different depending on the Threading Machine. Please use the suitable Base Bracket. Applicable models are written on the back side of Base Brackets. In addition, when installing Base Brackets to the unit, make sure to install it as the seal side comes in front.



- ② Insert Connection Shaft all the way into Grooving Shaft.  
③ Tighten two screws attached on Connection Shaft to the flat surface and fix them.

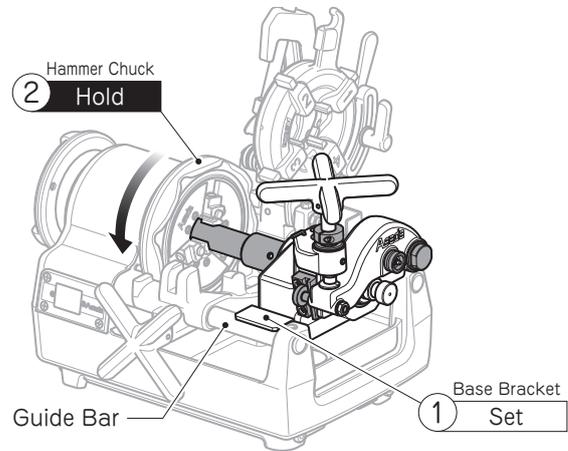


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## OPERATION

### Installing to the Threading Machine

- ① Set Base Bracket of Roll Groover on the Guide Bar of Threading Machine.
- ② Hold Connection Shaft tightly by Hammer Chuck.

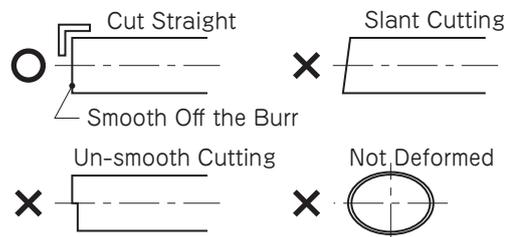


### Setting Materials

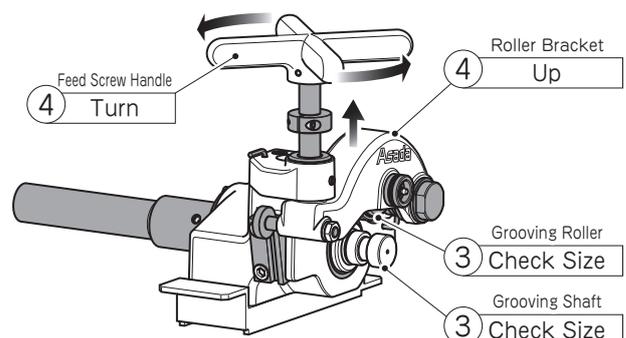
#### ⚠ CAUTION

- ◆ **Do not operate a material less than 20cm.**  
It may injure your finger.
- ◆ **If a material is 60cm or longer, be sure to use a pipe support. (Refer to optional accessories of P7)**  
The machine may fall down and cause of injury or damage to the machine.
- ◆ **Set the material 0.5 degrees aslant against the machine.**  
**Check if the machine and material are parallel to the ground by using Level.**  
To prevent from dropping the material or damaging the machine.

- ① Cutting Surface of the material must be straight and not deformed.
- ② Smooth off the burr on the cutting surface.



- ③ Check the size of the material, Grooving Roller, and Grooving Shaft.  
Applicable material sizes are written on Roller and Shaft. Standard Roller and Shaft are applicable to 2" ~ 6" .
- ④ Turn Feed Screw Handle and upper Roller Bracket.

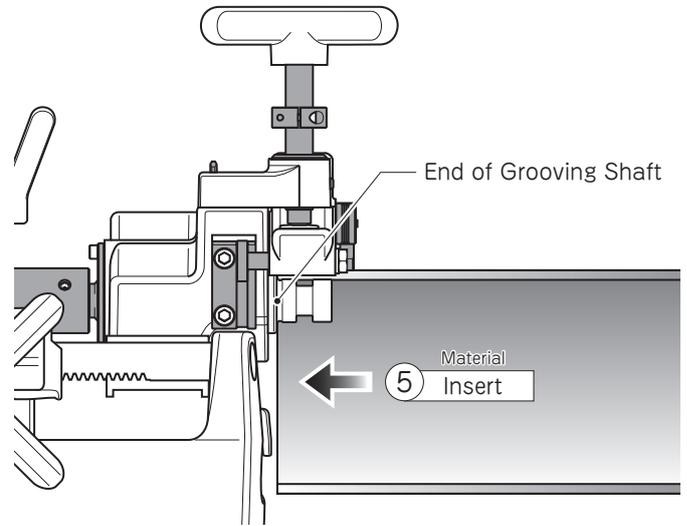


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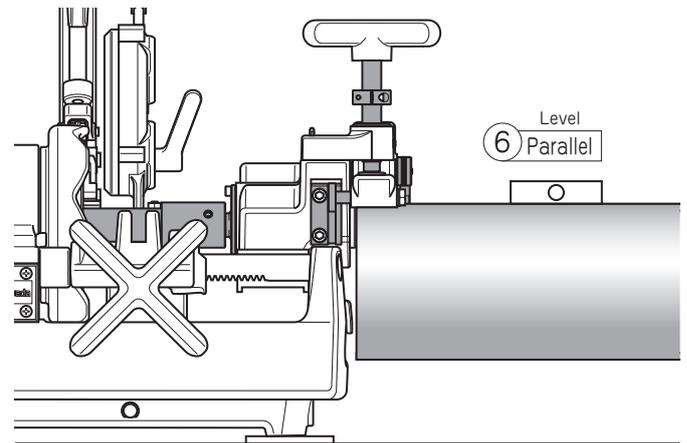
- ⑤ Insert the material until the end of Grooving Shaft.

**⚠ CAUTION**

- ◆ If the material is 60cm or longer, be sure to use a pipe Support. (Optional accessories)

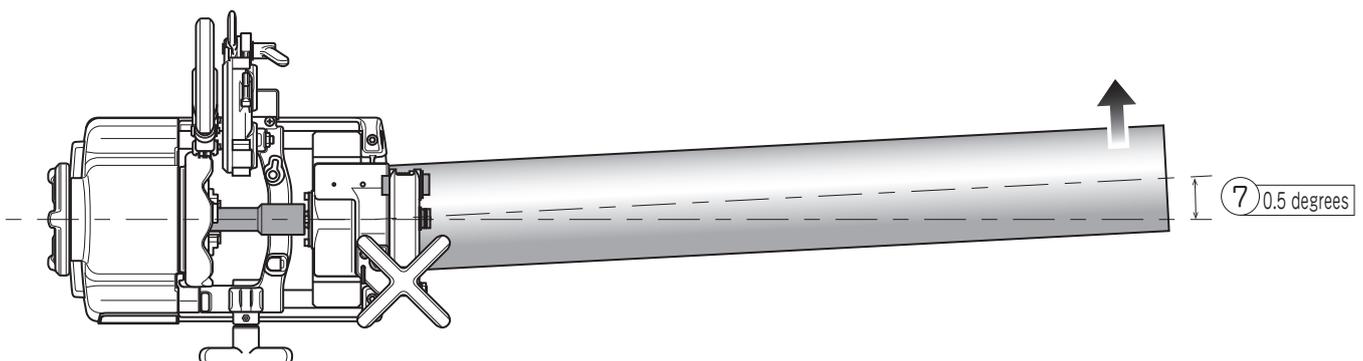


- ⑥ Make the material and the Threading Machine parallel by using Level.



- ⑦ Set the material 0.5 degrees aslant against the Threading Machine. (Direction shown on the graph.)

In case of setting a material more than 0.5 degrees aslant, it may not only cause of overload and damage the machine, but also deformed grooves. (Meander groove, Buccinal surface, etc.)



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## Grooving Depth Adjustment

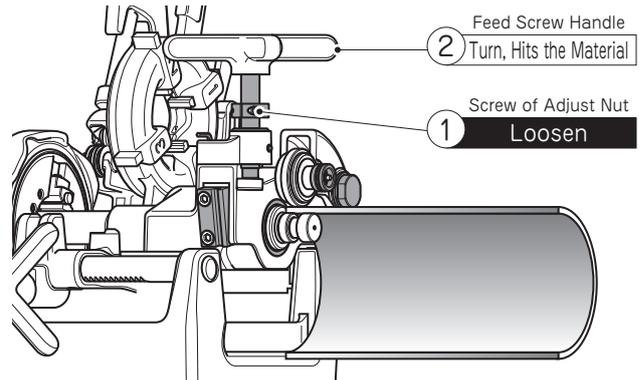
### ⚠ CAUTION

#### ◆ Groove depth adjusted with Depth Gauge is only a guide.

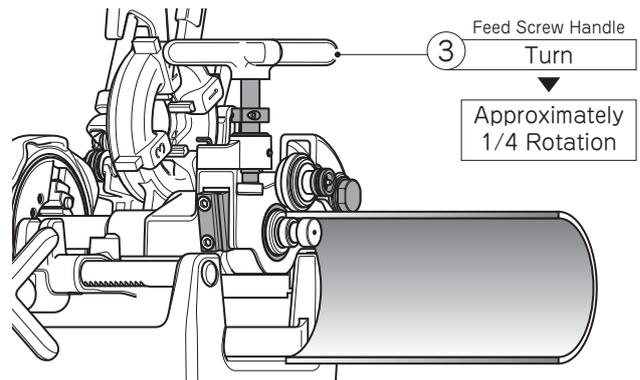
Check the depth by a trial operation before starting.

Use Adjust Nut in case if the groove depth is not meeting the standard.

- ① Loosen up the fixing screw of Adjust Nut.
- ② Turn Feed Screw Handle and lower Roller Bracket until Grooving Roller lightly hits the material.



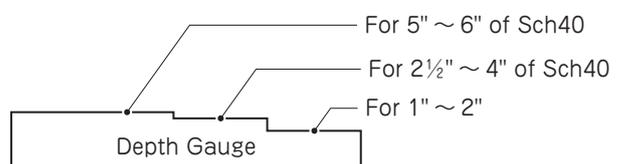
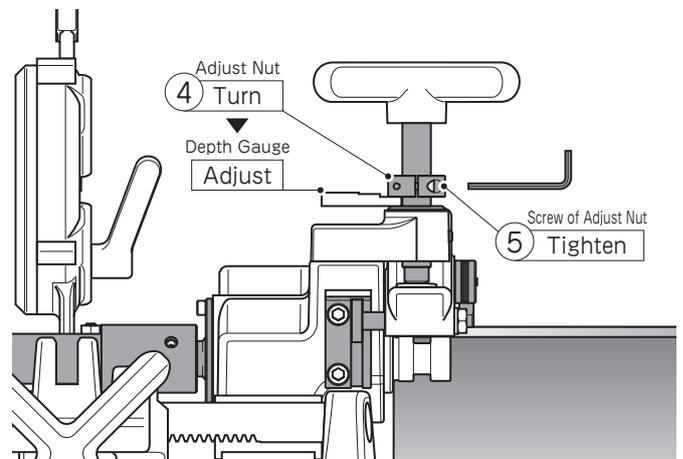
- ③ Turn Feed Screw Handle until the material adheres to Grooving Shaft. Approximately 1/4 rotation of Feed Screw Handle is required after Grooving Shaft touches the material.



- ④ Put a proper Depth Gauge according to the thickness of the material by turning Adjust Nut. Thickness of Depth Gauge has 3 stages. Make sure to use the depth gauge proper to the material.

- ※ For 1" ~ 2" of schedule 10 and schedule 40
- ※ For 2.1/2" ~ 6" of schedule 10 and 2.1/2" ~ 4" of schedule 40
- ※ For 5" ~ 6" of schedule 40

- ⑤ Tighten up the fixing screw of Adjust Nut and fix the nut.
- ⑥ Slightly loosen up Feed Screw Handle Slightly loosen up Feed Screw Handle and remove Depth Gauge.



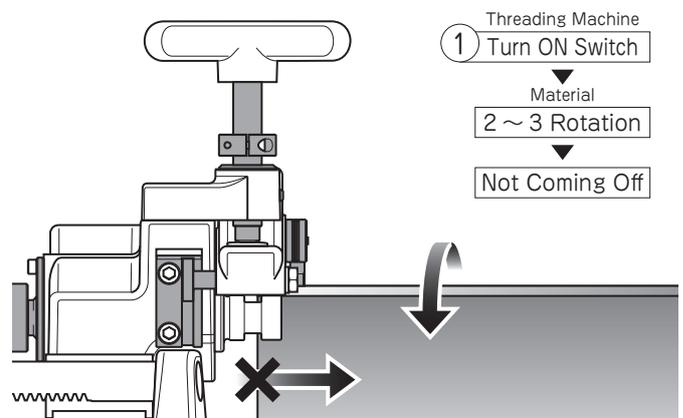
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## Grooving

### ⚠ CAUTION

- ◆ If the gap between the surface of Grooving Shaft and the material opens, turn off the machine immediately and stop the rotation of the material.  
The material may come off from Grooving Shaft and drop. This might cause of a serious injury.
- ◆ Loosen up Feed Screw Handle and reset the material at the right position.  
Make sure that the material is parallel and it' s set aslant as required.

- ① Turn ON the switch of the Threading Machine and start rotating the material.  
During the first 2-3 rotations, check if the material is not coming off.

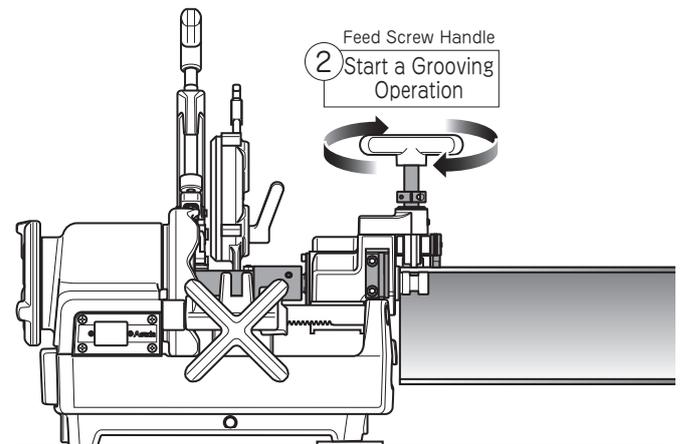


### ⚠ CAUTION

- ◆ Turn the handle at the following indicated speed.  
If handle is turned fast, the material may get deformed and cause of a damage to the machine.

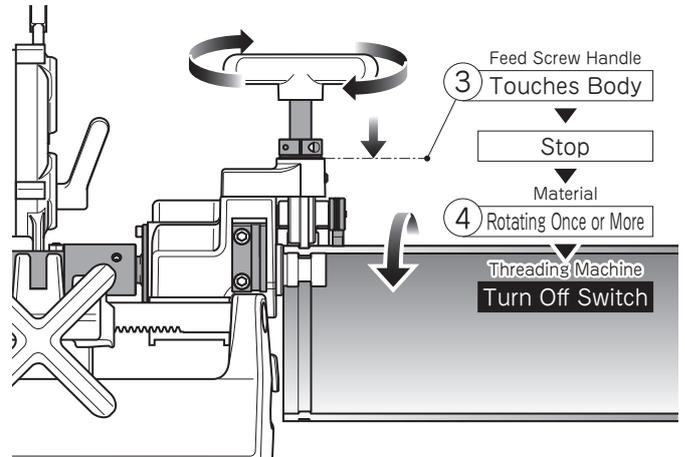
- ② Turn Feed Screw Handle to start a grooving operation after having checked that the material is not coming off.

Handle rotation speed per 1 rotation of the material as follows		
Schedule 10 steel pipe	1" ~ 6"	1/2 per rotation
Schedule 40 steel pipe	1" ~ 4"	1/4 per rotation
	5" ~ 6"	1/8 per rotation



# ROLL GROOVER 640

- ③ Turn the handle until Adjust Nut touches Body. Stop turning the handle once the handle gets hard to turn.
- ④ After rotating the material once or more, loosen up the handle and upper Roller Bracket. Then turn off the Threading Machine.
- ⑤ Remove the material from Grooving Shaft.



## ⚠ CAUTION

- ◆ **Polish the surface of the seal and remove the burr after the operation.**  
Without these process a leakage or a damage to the gasket may occur.

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## Checking the Size of Groove

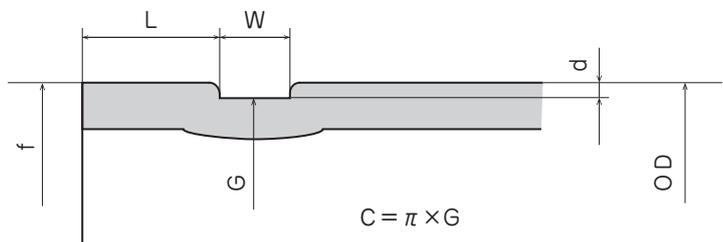
### ⚠ CAUTION

◆ Please make sure to check the size of the groove after the operation.

Measure Groove Diameter (G), Seal Surface Width (L), and Groove Width (W) after the operation and confirm that they are in the standard.

① In case if the size of the groove doesn't meet the standard, adjust the fixing position of Adjust Nut.

- ▶ By turning Adjust Nut clockwise, the groove becomes narrower. (Narrowing the gap between Adjust Nut and Body.)
- ▶ By turning Adjust Nut anticlockwise, the groove becomes deeper. (Widening the gap between Adjust Nut and Body.)



Standard Table of Roll Groove (mm)

Nominal		Pipe O.D. (O.D.)	Seal Surface width (L)		Groove width (W)		Groove Diameter (G)		Groove Depth (d)
A	B								
25	1"	34.0	16.0	+0.4 -0.9	7.1	± 0.8	30.4	0 -1.0	1.80
32	1 ¼"	42.7	16.0	+0.4 -0.9	7.1	± 0.8	39.1	0 -1.0	1.80
40	1 ½"	48.6	16.0	+0.4 -0.9	7.1	± 0.8	45.0	0 -1.0	1.80
50	2"	60.5	16.0	+0.4 -0.9	8.7	± 0.8	56.9	0 -1.0	1.80
65	2 ½"	76.3	16.0	+0.4 -0.9	8.7	± 0.8	72.2	0 -1.0	2.05
80	3"	89.1	16.0	+0.4 -0.9	8.7	± 0.8	84.9	0 - 1.0	2.10
100	4"	114.3	16.0	+0.4 -0.9	8.7	± 0.8	110.1	0 -1.0	2.10
125	5"	139.8	16.0	+0.4 -0.9	8.7	± 0.8	135.5	0 -1.0	2.15
150	6"	165.2	16.0	+0.4 -0.9	8.7	± 0.8	160.8	0 -1.0	2.20

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## Changing Size

### ⚠ CAUTION

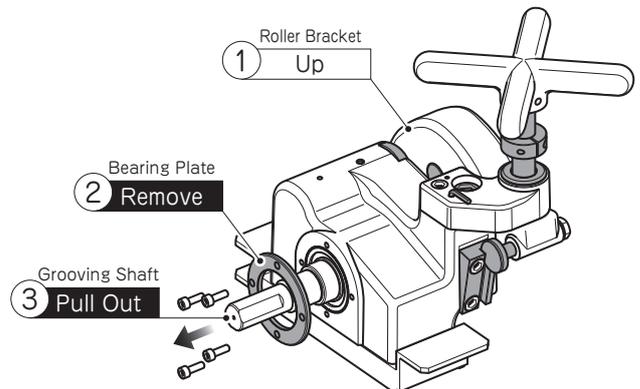
- ◆ **Make sure to replace Grooving Roller and Grooving Shaft as a set.**  
Correct operation cannot be done with the wrong combination.
- ◆ **Grooving Roller, Grooving Shaft, Roller Shaft, and Thrust Washer must be clean when they will be installed.**
- ◆ **Please put the grease on the bearings (inside of Grooving Roller and unit) and Roller Shaft.**

□ Standard Roller and Shaft are applicable to 2"~6".  
In case of operating 1" ~ 1.1/2", please change Roller and Shaft to which are applicable to 1"~1.1/2".

※ Applicable sizes are written on Roller and Shaft.

## Replacement of Grooving Shaft

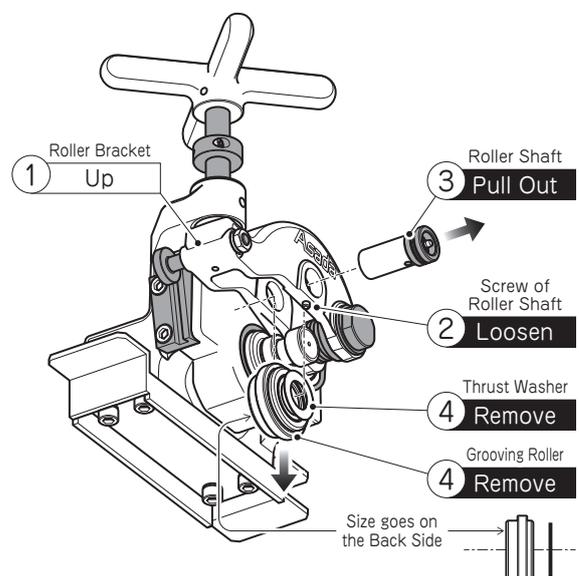
- ① Turn Feed Screw Handle and upper Roller Bracket fully.
- ② Loosen up 4 pcs of Bolts on Bearing Plate and remove the plate.
- ③ Pull out Grooving Shaft.
- ④ Insert Grooving Shaft with the required size, install Bearing plate and fix with 4 pcs of Bolts.



## Replacement of Grooving Roller

- ① Turn Feed Screw Handle and upper Roller Bracket fully.
- ② Loosen up the fixing screw of Roller Shaft,
- ③ and pull out Roller Shaft.
- ④ Remove Grooving Roller and Thrust Washer.
- ⑤ Install Grooving Roller and Thrust Washer with the required size, insert Roller Shaft and fix it with the fixing screw.

※ Install as the size seal of Grooving Roller goes on the back side and Thrust Washer comes front side.



# ROLL GROOVER 640

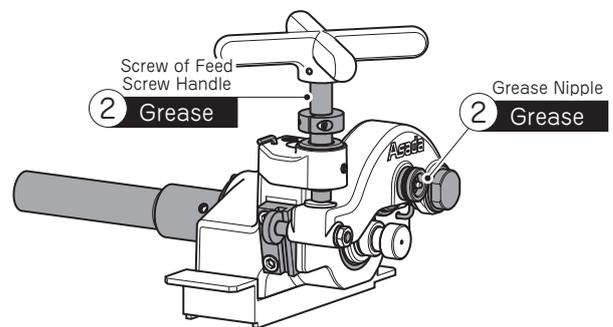
## MAINTENANCE & INSPECTION

### ⚠ CAUTION

- ◆ **When cleaning, checking or replacing parts, turn off and unplug the machine.**  
If the machine remains plugged in, it will start suddenly, leading to accident or injury.
- ◆ **Always wear gloves when replacing repair parts.**

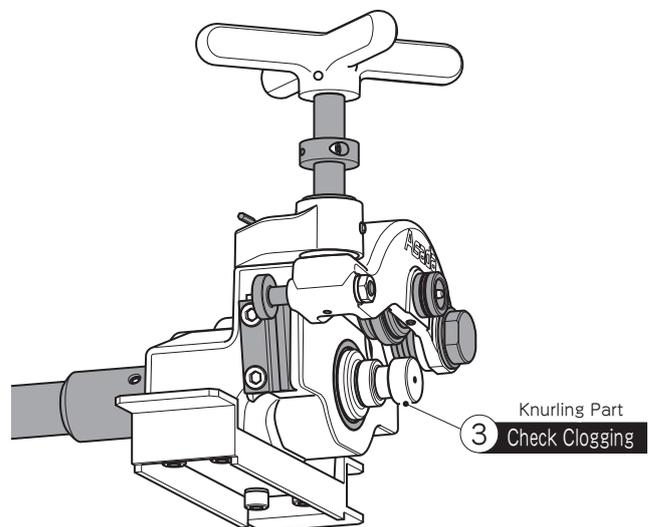
### Apply Grease

- ① Put grease on the bearing and the moving parts when replacing Roller and Shaft.
- ② Regularly put grease in a grease nipple of Roller Shaft and on the screw of Feed Screw Handle. (More than once in a month is required.)



### Checking

- ① Make sure that all screws or nuts of each part are not loosen. If they are loosen, tighten them.
- ② Make sure that the size of Grooving Roller and Grooving Shaft are suitable to the size of the material which will be operated.
- ③ Make sure that there is no clogging in the knurling part (Groove part) of Grooving Shaft. If there is, clean the knurling part by a wire brush.
- ④ Make sure that there is no damage or worn out on Grooving Roller. If there is, replace to new Grooving Roller.



### Cleaning

- ① In order to use the machine efficiently for a long time, remove dirt on the machine. Please keep it clean especially around Grooving Roller or Grooving Shaft. If cutting chips are stuck on Grooving Roller or Grooving Shaft, it may cause a damage to the bearings or other parts.
- ② If the machine doesn't operate properly, do not attempt to repair by yourself. Please contact the dealer or our company immediately.

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## TROUBLESHOOTING

- Before asking for repairs, check following troubleshooting.
- If the problem cannot be solved, contact the shop you purchased or our sales office.

Phenomenon	Causes	Counter Measures
Groove width is narrow or wide.	Size of Grooving Roller & Grooving Shaft doesn't match the size of the material.	Use the right size of Grooving Roller & Grooving Shaft match the material size.
	The combination of Grooving Roller & Grooving Shaft is not correct.	Use the right combination of Grooving Roller & Grooving Shaft.
	Grooving Roller or Grooving Shaft is worn out.	Replace the worn out parts.
Groove depth is shallower or deeper.	Thickness of Depth gauge doesn't match the size of the material.	Use the right Depth gauge matches the size of the material.
	The material is oblong.	Operate a material which is perfectly circled.
	Feed Screw Handle is turned too fast.	Turn the Handle at the indicated speed.
Groove depth is meandering.	The surface of the material is oblique.	Cut the material vertically.
	The material is bent.	Operate the material which is straight.
	Feed Screw Handle is turned too fast.	Turn the Handle at the indicated speed.
	The material is set unparallelled to the ground. (Lower than Threading Machine)	Check whether the material and Threading Machine are parallel to the ground.
The cutting surface of the material is buccinal.	Feed Screw Handle is turned too fast.	Turn the Handle at the indicated speed.
	The material is set unparallelled to the ground. (Higher than Threading Machine)	Check if the machine and material are parallel to the ground.
	The setting angle of the material is too large from the center axis of the Spindle.	Adjust to the right direction and angle from the center axis of the Spindle.
	The cutting surface of the material is aslant.	Cut the material straight.
The material is coming off from the machine.	Feed Screw Handle is turned too fast.	Turn the Handle at according to the following indicated speed.
	The material is set unparallelled to the ground.	Check if the machine and material are parallel to the ground.
	The material is set without any angle from the center axis of the Spindle. (It is set straight to the Threading Machine.)	Adjust to the right direction and angle from the center axis of the Spindle.
	Something is stuck on Grooving Shaft or it's worn out.	Make sure to clean Grooving Shaft or replace it.

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