

WF-1000

Flange Facer

Operating & Maintenance Manual

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Important Notice

Tool Ltd has made every effort to ensure that the information given in this technical leaflet and other publications relating to this machine is correct and understandable. However it is acknowledged that there may be errors or omissions in this publication.

The company reserves the right to modify its products without notification and consequently to supply machines that may not be in accordance with the descriptions and procedures within this publication.

The company also reserves the right not to provide updates, corrections or amendments to this publication but will endeavour to keep its customers up to date with all changes that may affect the machine operation or safety.

Health & Safety at work act

For maximum safety and performance, read and understand this entire manual and all other safety instructions before using this equipment. Failure to follow the instructions and guidelines in this manual could result in property damage and personal injury.

Section of the above act requires manufacturers to advise their customers on the safety and handling precautions to be observed when installing, operating, maintaining and servicing their products. Accordingly, the following points should be noted:

1. The relevant sections of these instructions should be carefully read before proceeding.
2. Installation, maintenance and servicing should only be carried out by suitably trained and competent personnel.
3. Normal safety procedures must be taken into account to avoid the possibility of an accident occurring.
4. Any safety equipment necessary for the maintenance/use of the equipment is the responsibility of the customer. JR Portable Machine Tools accepts no responsibility for accidents that may occur due to incorrect installation, maintenance or use.

General Operation

The following procedures are provided to enable your machine to be installed and function correctly and safety.

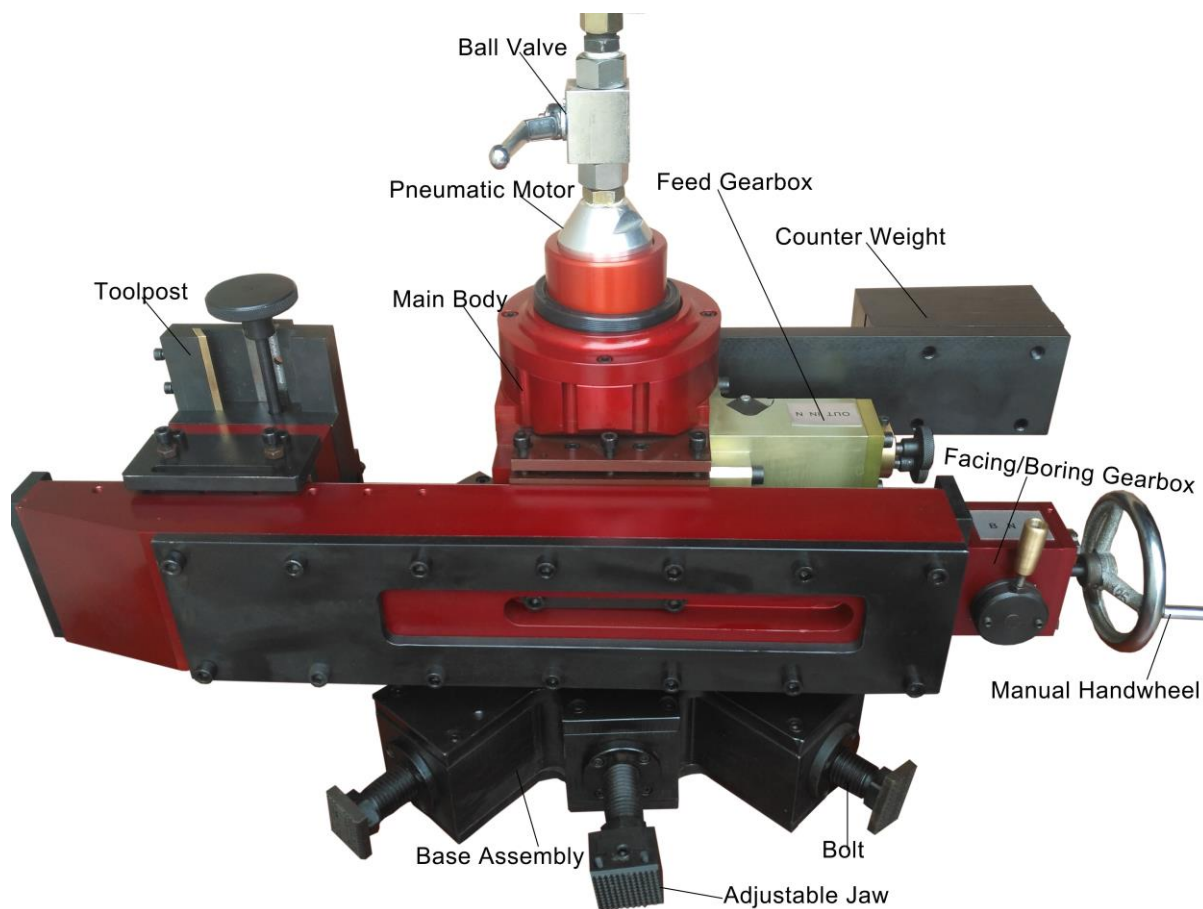
Please read the following before proceeding

1. All safety procedures must be observed prior to operating the equipment.
2. The operators must wear the correct safety equipment whilst operating this machine.
3. Do not attempt to machine above the specification of the machine or below the specified sizes. This will invalidate the guarantee.
4. Do not attempt to machine if the locking of the machine is suspect or below that recommended.
5. Ensure that the machine gearbox is stored in neutral and the cut off the power supply before leaving the machine when finish the machining work.
6. Never leave the machine working unattended.
7. Make sure that all personnel are fully trained in both the operation of the machine and all the relevant safety aspects.
8. Keep items such as: air hoses, electrical cords, cables, rags, rigging straps, away from rotating equipment.

Caution

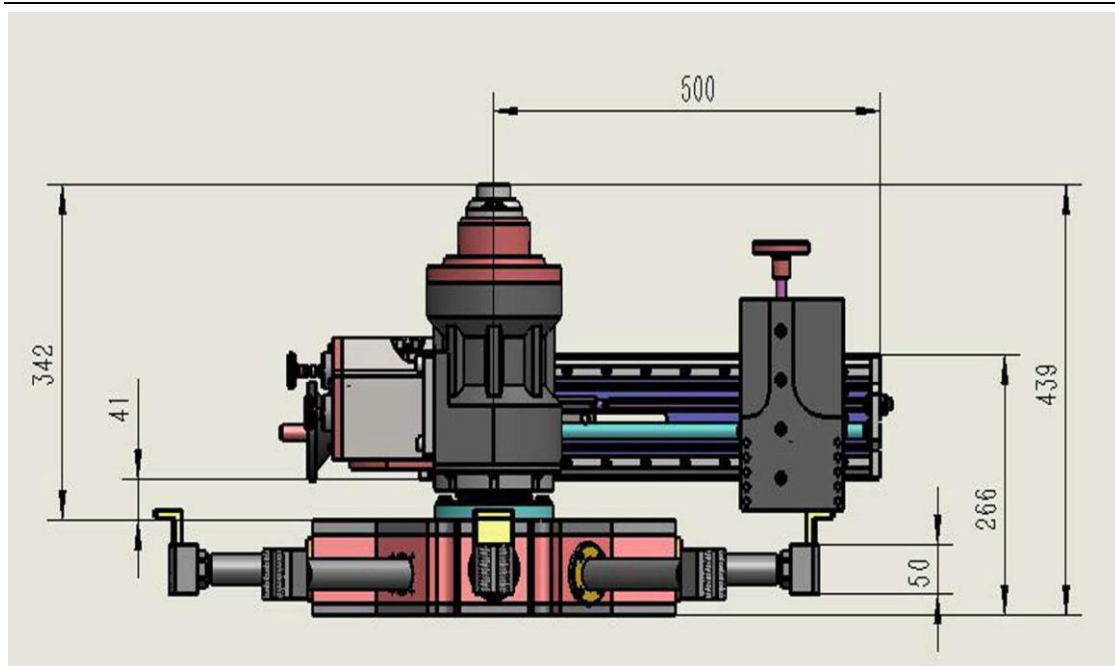
Do not attempt to alter the feeds whilst the machine is rotating.

WF-1000 Features



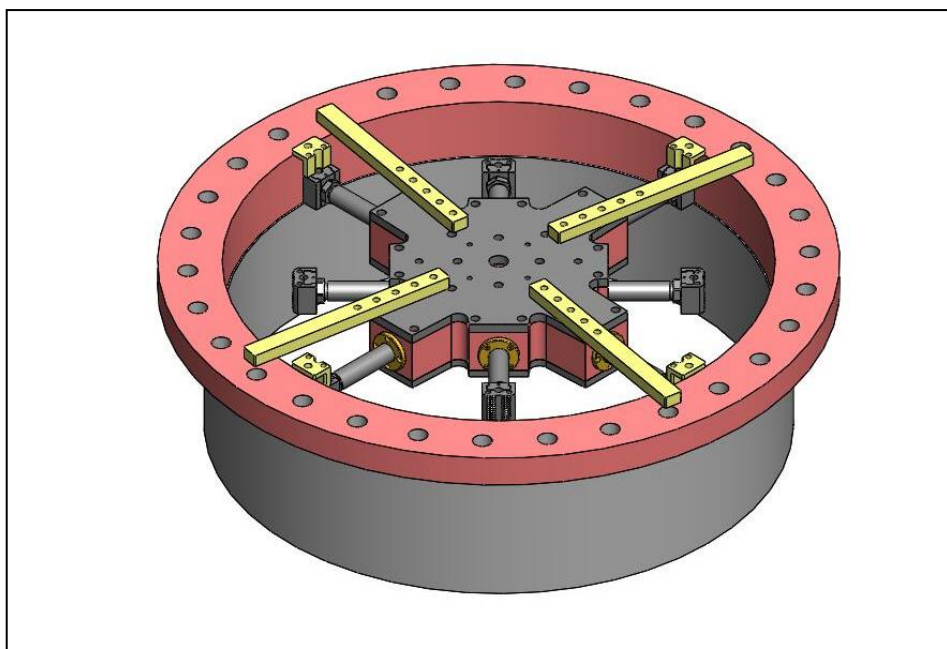
Technical Details

Technical Details		
Minimum Facing Diameter	Φ160mm	6.3 "
Maximum Facing Diameter	Φ1010mm	34 "
Minimum Clamping Diameter	Φ158mm	6.3 "
Maximum Clamping Diameter	Φ820mm	32 "
Tool post travel	102mm	4 "
R.P.M	Min0rpm	Max32rpm
Air Consumption	1.798 m ³ /min	
Drive-Pneumatic	3KW	
Air Pressure	0.63MPa	



Installation

1. Base assembly installation



1.1. Measure mounting bore of the flange to be machined and ensure this within the working parameters of the machine.

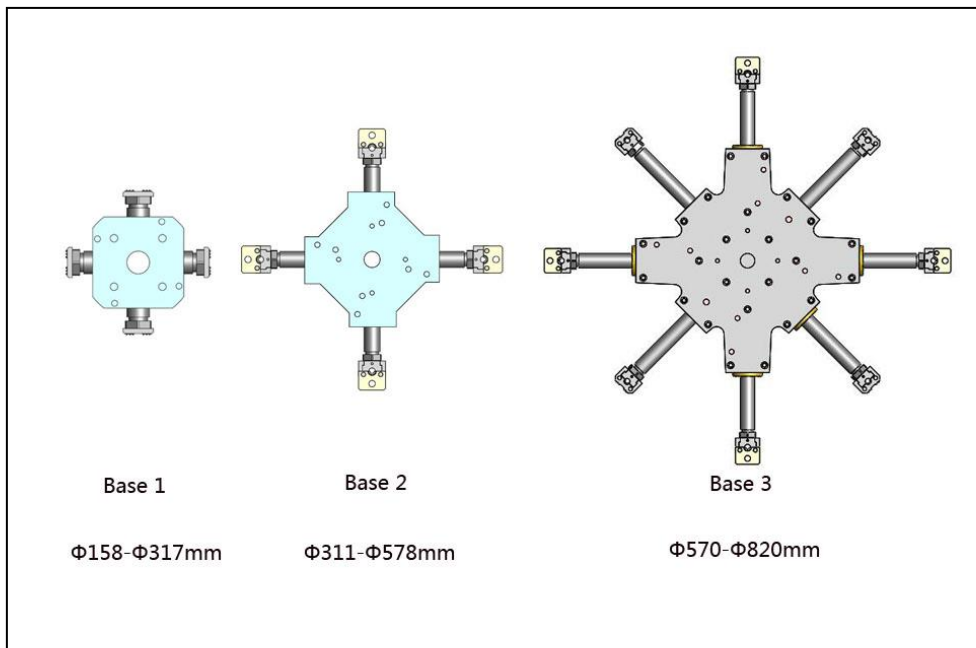
1.2. Select the required components, and screw the base components into the correct base until they measure equally 6mm (0.25") below the bore mounting dimension.

1.3. Bolt the setting straps onto the base ensuring they overlap the bore dimension by at least 25mm (1").

1.4. Position the base into the flange bore and screw out the jacking bolts. Check centralization by measuring and adjust as necessary.

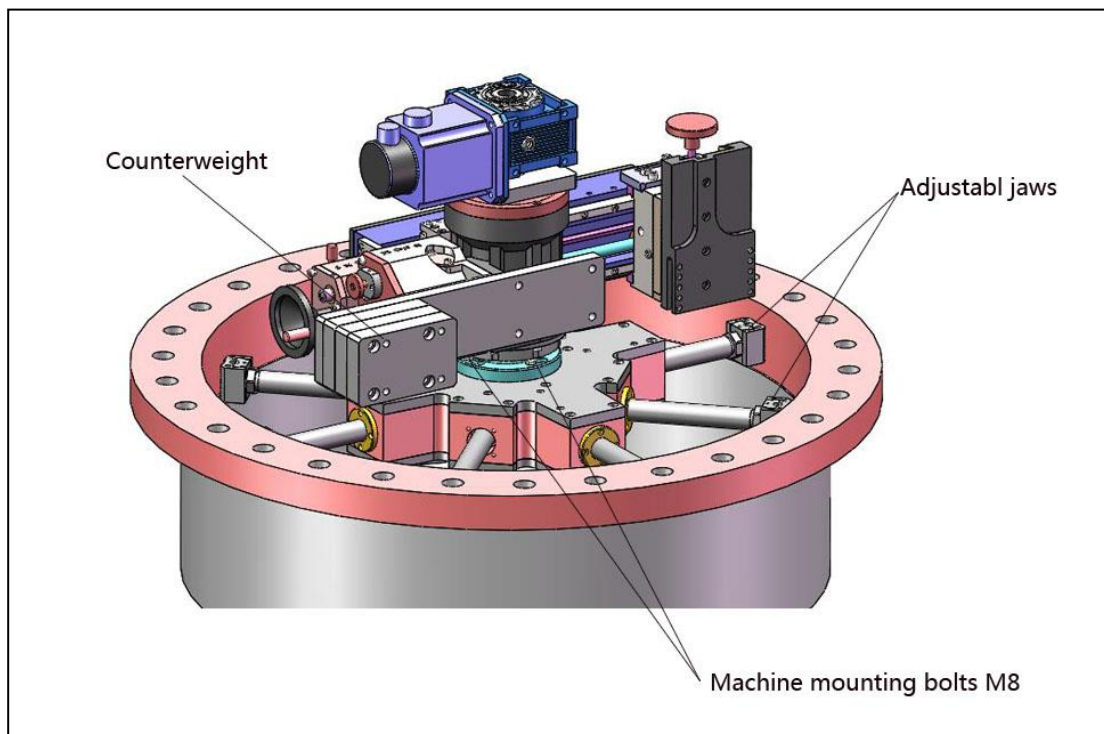
1.5. Adjustments can be made tightening and loosening opposing jacking bolts. It is recommended that the setting straps are left in place until the base unit is fully installed.

2. Base assembly dimensions



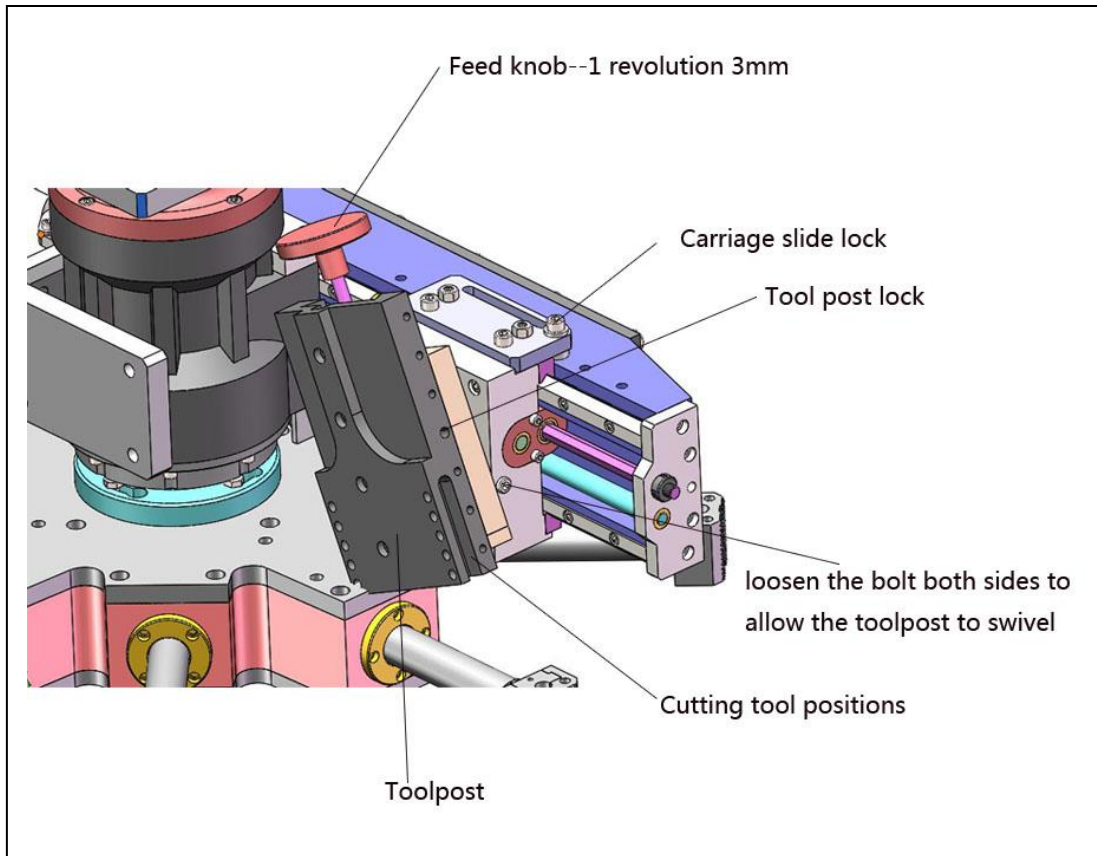
The machine is then mounted to the base and final centralization can be done with dial indicator.

3. Machine installation



- 3.1 Install 4 M8 bolts on the base and the bolts away from the base surface 20mm.
- 3.2 Ensure the toolpost is fully retracted and the cutting tool has been removed.
- 3.3 Install the machine on the base and tighten the mounting bolts. A central location spigot is provided for exact location of the machine to the base.
- 3.4 If vertical installation, the counterweight paltes must be installed on the mainbody.
- 3.5 A magnetic base dial indicator is provided for precise adjustment of the machine.
- 3.6 Check all bolts to ensure locking.

Toolpost setting



1 Toolpost travel is 102mm (4").

2 Loosen the bolts both sides, the toolpost will swivel. Tighten the 2 off bolts to lock the required angle.

3 When facing, ensure the carriage slide lock bolt is removed, and tighten the toolpost lock bolt. When boring tighten the carriage slide lock bolt and loose the the toolpost lock bolt. (IMPORTANT)

Facing / Boring selector

FC1000 portable flange facer has Facing function (radial feed) and boring function (vertical feed), and both are automatic feed. For facing push the selector to the **【F】** and for boring push the selector to the **【B】**.

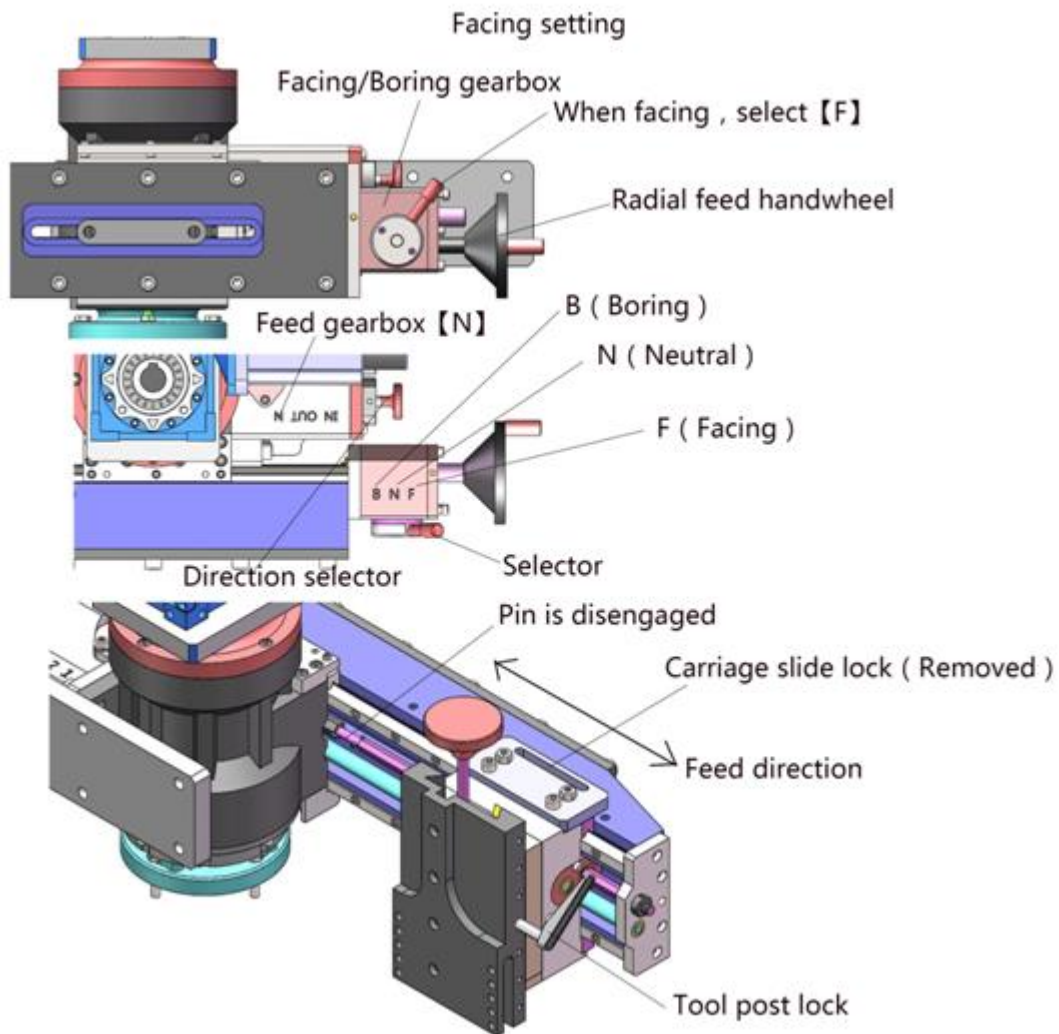
Facing feed setting:

1. Push [direction selector] to the position **【N】** on feed gearbox.
2. Remove [carriage slide lock].

IMPORTANT:

Remember to remove the [carriage slide lock] in facing mode. Failure to do so could result in damage to the machine.

3. Push the [selector] to **【F】** whilst rotating the [radial feed handwheel], make sure the selector is in place.
4. When facing, tighten the [tool post lock].



Boring feed setting:

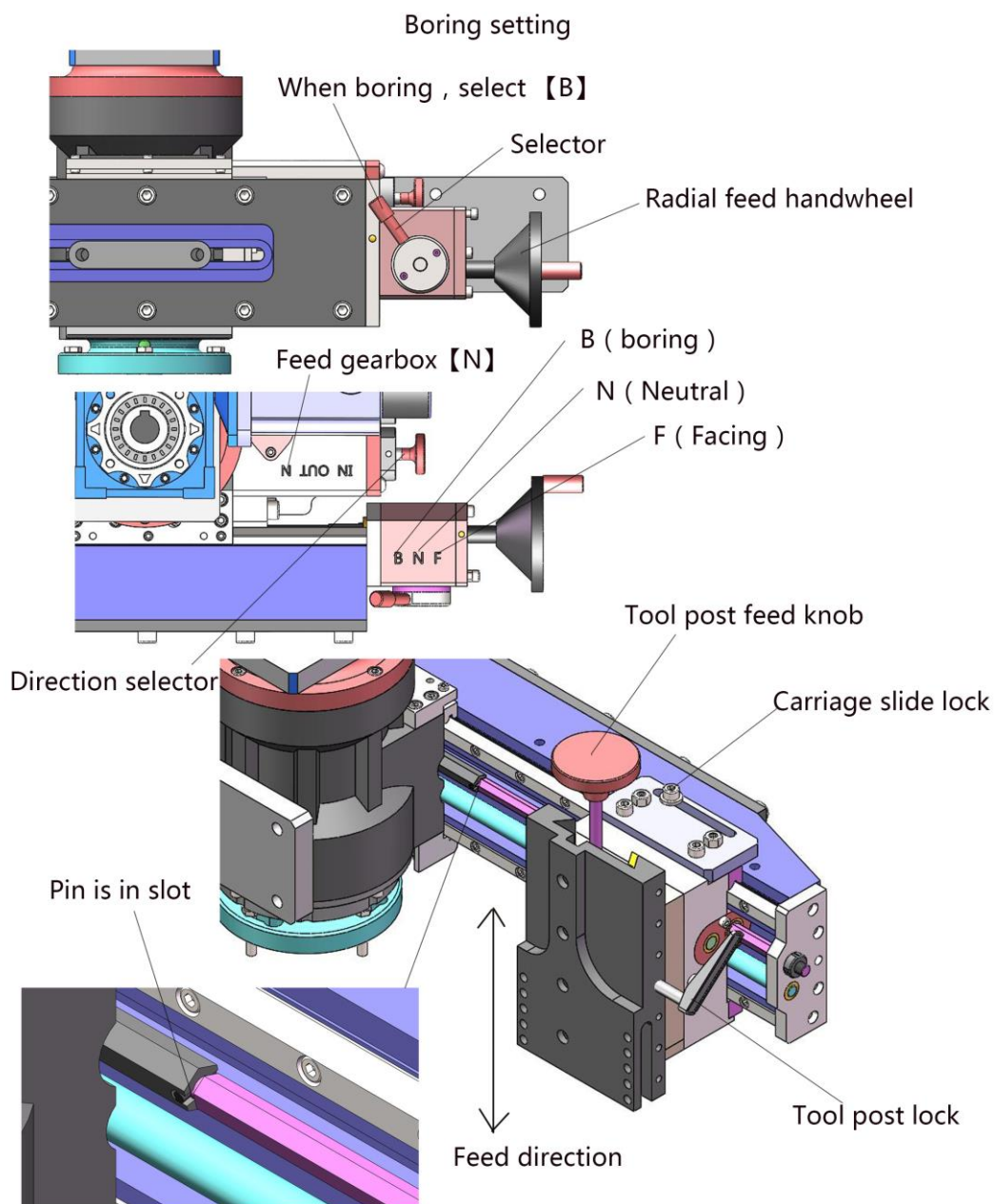
1. Push [direction selector] to the position **【N】** on feed gearbox.
2. Loosen the [tool post lock].
3. Push the [selector] to **【B】** whilst rotating the [tool post feed knob], make sure

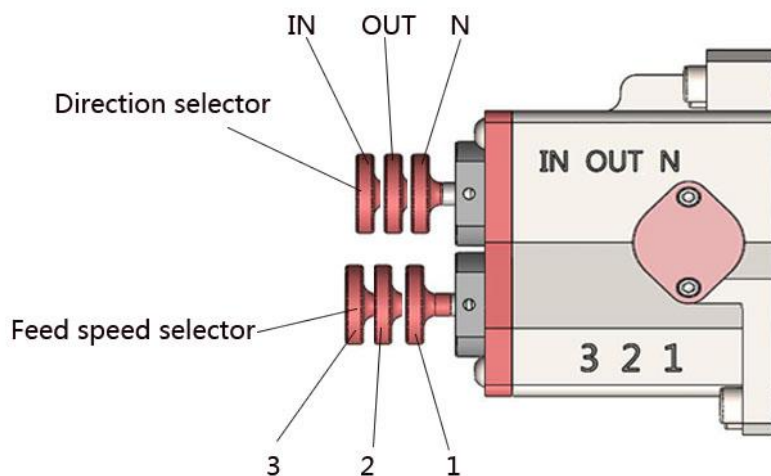
the selector is in place.

IMPORTANT:

Pay attention to the position of the pin when push the [selector], make sure the pin is in the slot.

4. When using the tool post in boring mode, remember to install [carriage slide lock] to position the tool post.





Facing feed rate		
Feed direction	Feed gear	Feed rates
IN	1	0.128 mm/r
IN	2	0.191mm/r
IN	3	0.383mm/r
OUT	1	0.164 mm/r
OUT	2	0.246mm/r
OUT	3	0.492mm/r
Boring feed rate		
Feed direction	Feed gear	Feed rates
IN	1	0.09 mm/r
IN	2	0.138mm/r
IN	3	0.277mm/r
OUT	1	0.119 mm/r
OUT	2	0.178mm/r
OUT	3	0.356mm/r

Fault Diagnosis Chart

The following chart is supplied to enable the operator to locate possible faults arising from the operation of the machine. If any faults persist or are out of the scope of this chart please contact our technical staff		
Fault	Possible reason	Action to take
Machine will not rotate	1. Lacks Air supply	Check Air supply
	2. Pneumatic motor fault	Check drive motor Contact technical staff
	3. Air valve closed	Check the valve
	4. wrong connected hoses	make sure the hoses right connected and valve open
Machine will not traverse	1. Feed selector is not correctly engaged	Check gear engaged, see the gear selection procedures in this manual
	2. Direction lever is not correctly engaged	
	3. Facing / Boring lever is not correctly engage	
Poor surface finish on flange	1. Tool tip worn	Replace / regind tip
	2. Machine not correctly clamped in flange	Check and tighten all mounting bolts and base legs
	3. Depth of cut too deep	Reduce depth of cut
	4. Tool loose	Tighten tool
	5. Toolpost / swivel loose	Check swivel screws are right
	6. Surfacing arm clamps loose	Re-tighten clamps-see surface arm procedures
	7. Too much play in toolpost gib strip or carriage	Adjust toolpost & carriage
	8. Machine installation bolts not tightened	Check bolts
	9. Worn linear guides	Check & contact technical staff
	10. Incorrect balancing	Check machine balance

Pneumatic Motor:

Power: 3Kw.

Torque: 155Nm.

R.P.M: 150rpm.

Working Pressure: 0. 6Mpa

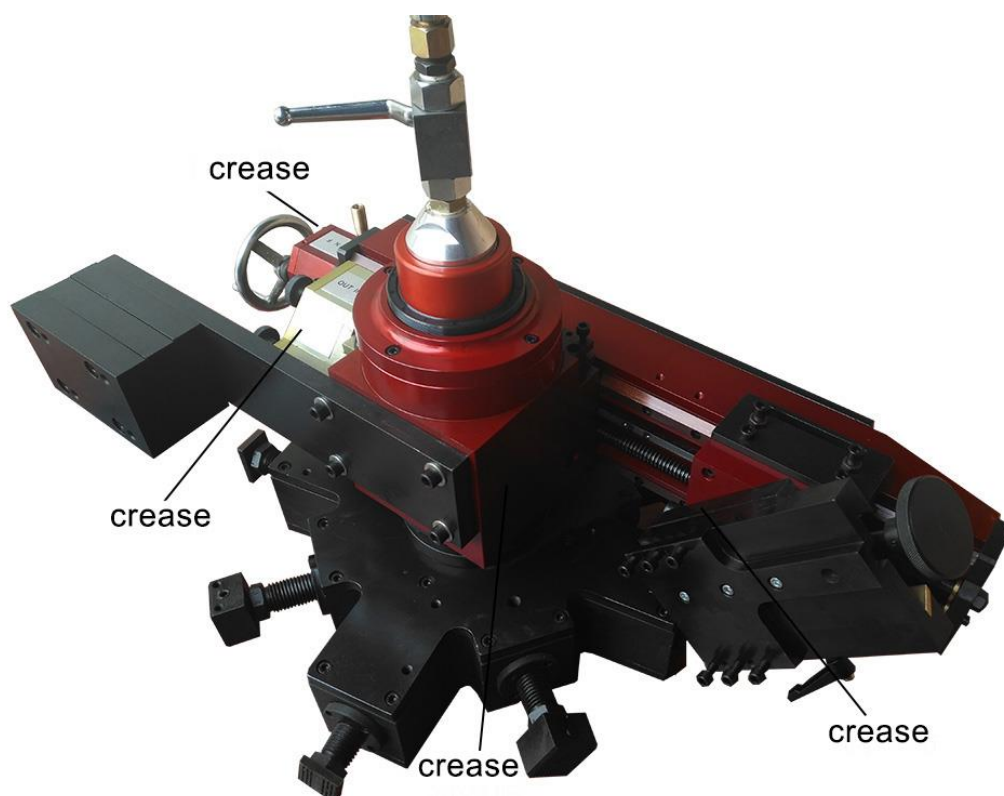
Air Consumption: 32L/S.

Recommend Lubricant: FUCHS VG/ISO 22.

Lubrication: Set the lubricator to deliver oil at a rate of 1 drop every 7 seconds. A set of filtering and lubricating unit is included with the equipment, which has been pre-set before leaving the factory. Before using the equipment, check the dripping speed of the lubricant. The dripping speed can be adjusted by ball valve.

Warning: If fail to follow the above steps to operate, the air motor warranty will be invalid.

General Lubrication & Maintenance



Lubircation / Maintenace		
Period	Action	Lubircation
After use	Clean rails, carriage feedscrew, toolpost, toolpost feedscrew and machine in general	Lightly oil or spray with WD40 or equivalent.
Weekly	Grease linear guides 2 strokes max. Grease jaw screws	Silkolene G39 semi-fluid Elf TL or equivalent
Storage	If the machine is to be stored for any length of time clean thoroughly and spray WD40 into the motor inlet and seal. Spray machine with WD40 or equivalent.	