

INSTRUCTION MANUAL

AIR MULTIPUL NEEDLE SCALER

Please read this manual carefully before you attempt to use your machine so that you may use it properly and safely.

JET CHISEL

Model JEX-2800A

PROFESSIONAL TOOL



SPECIFICATIONS

Model		JEX-2800A
Rated Air Pressure		0.63MPa (90PSI, 6.3bar)
Air Consumption at Free	m ³ /min (cfm)	0.43 (15.2)
Stroke Speed	min ⁻¹	3700
Mass (Weight)	kg (lbf)	3.3 (7.3)
Sound Pressure Level (L_{PA})	dB (A)	95
Sound Power Level (L_{WA})	dB (A)	106
Vibration Level	m/sec ²	8.9
Thread Size of Air Inlet		Rc3/8 (PT3/8)

The specifications and configurations contained in this document are subject to change without prior notice due to improvements we are making day in, day out.



Manufactured by :

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Keep the manual handy - so you can use it whenever necessary.

Thank you very much for your purchase of Nitto Kohki product. Before using your machine, please read this manual carefully so that you may use it properly to get the most out of it. Please keep the manual handy - so you can use it whenever necessary.

- English :Please ask your dealer or distributor for instruction manual in local language(s).
- German :Bitte fragen Sie Ihren Händler nach eine Betriebsanleitung in Landessprache.
- French :S'il vous plait, veuillez demandez á votre fournisseur de manuel instruction en langue locale.
- Spanish :Por favor, contacte con su distribuidor para el manual de instrucciones en español.
- Portuguese :Por favor pessa ao seo agente ou distribuidor o manual de instrucces ih linguagen local.
- Italian :Per Manuale Istruzioni in lingua locale Vi preghiamo di rivolgervi al rivenditore o distributore.
- Dutch :Vraag uw handelaar om een nederladstalige gebruiksaanwijzing.
- Swedish :Be er lokala Atreförsäljare eller distributör om manualer på svenska.
- Danish :Venligst henvend Dem til den danske distributør for instructions manualer.
- Polish :Proszę pytać swojego dealera lub dystrybutora o instrukcje obsługi w języku localnym.
- 中文 :請向當地供應商或經銷商詢問中文使用說明書

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
The following Safety notations are used throughout the manual to highlight safety precautions for the user and for the machine.

Warning:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in death or serious injury.

Caution:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in injury or material damage.

Please note, however, that failure to observe safety precautions under the “ **Caution**” category could result in a serious occurrence depending on the situation: please observe all safety precautions in the manual.

Caution: Important precautions for machine or tool setup, operation and maintenance.

IMPORTANT SAFETY INSTRUCTIONS

When using the machine, please take the basic safety precautions as described below to prevent possible injury.

GENERAL: TOOLS

Warning

To Operators

- **Wear proper clothing for the type of work being done.**
No loose clothing nor adornments when at work: you will be pulled into the machine if you're unlucky. Wear nonskid footwear. If you have long hair, wear a safety hat that can cover up your hair completely.
- **Always wear safety glasses.**
Remember, regular glasses are no safety glasses. The lenses are only shock resistant, which will not give you sufficient eye protection you may need in your working environment.
- **Wear respiratory personal protective equipment (PPE).**
Wear respiratory personal protective equipment (PPE) when working in an environment where dust particles are generated in operation.
- **Avoid working posture that is too stressful.**
Secure good footing, work in a well-balanced posture.
- **Do not operate the machine if you are too tired.**
- **Never touch any moving member on the tip of machine when running.**

About Work Area

- **Keep the work area clean.**
Cluttered work areas (e.g. workbench) invite accidents.
- **Carefully select the work area.**
Do not expose tool to rain. Do not use tool in a wet or soaked area.
See that the work area is adequately illuminated.
- **Never work near inflammable liquid or in a potentially explosive atmosphere.**
- **Keep children off the work area.**
Keep children and unauthorized persons off the work area.

Before Operation

- **Inspect tool before use.**
Before using, check that screws are securely tightened, that a protective cover and other parts are free from damage, and that the tool runs as it should.
Check that moving members are properly adjusted for positioning and tightened, that parts are free from damage and properly mounted, and that all other parts are in good condition for normal operation.

Should you find any damage to the protective cover or other part, replace it in accordance with the Operation Manual. If there are no instructions in the Manual, please contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

Likewise, if a switch failure occurs, contact sales agent through which you have purchased your tool or an authorized dealer near you for repair. .

Do not use the tool -- if it does not start or stop with the start/stop switch.

- **Securely mount cutter**
Improperly mounted cutter may fly out, causing possible damage to the machine or injury to the operator, etc.
- **Always remove spanner, wrench, etc., once adjustment is made with them.**
- **Use a tool appropriate for the application.**
Avoid heavy-duty application that is beyond the capacity of tool.
Do not use tool for other purposes than is geared to.
- **Do not abuse tool.**
Use tool in accordance with the specifications: you'll get the most out of it while ensuring safely.
- **Securely fasten workpiece in place.**
Use a vice or clamp to securely fasten the workpiece in place. It is much safer this way than holding it in your hand, allowing you to operate the tool with both hands.

About Handling

- **How to store tool.**
When the tool is not used, store it in a dry area and out of reach of children.
- **How to carry tool.**
Do not touch the start switch while the tool is being carried.
- **Do not leave the tool unattended while it is running.**
Turn off the start switch and disconnect the tool from power source. Do not leave the work area until the tool comes to a complete stop.

Maintenance/service

- **Do not take apart or modify tool.**
Disassembling or modification carried out without the supervision by a qualified or authorized service engineer might cause accident.
- **Inspect cutting tool and accessories, etc.**
Always check to see that cutting tool and accessories, etc. are in good operating condition without damage or deterioration -- before you mount them on the power tool. Should you find any damage to an accessory or part, please contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

- **Check parts for damage.**

When you have found damage to accessory or other part, carefully check the damaged part to determine the extent of influence it has upon the functions of the power tool - that is, determine whether it can still perform its normal functions. Check to see that the linkage of the moving members is OK, that all parts are OK without damage, that they are properly mounted, and that the power tool functions normally. Should you find any damage to an accessory or part that may hamper proper functioning of the tool, please contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

- **Have your tool repaired at Nitto service station**

For repair or parts replacement please contact sales agent through which you have purchased your tool or an authorized dealer near you.

- **Use Nitto genuine parts.**

Use of improper parts may result in serious occurrence.

To obtain a Nitto genuine part, consult this Manual or contact sales agent from which you have purchased your tool directly.

- **Do not detach label or nameplate from tool.**

When a label or nameplate gets scratched or peeled off, contact sales agent through which you have purchased your tool or Nitto Koki Co., Ltd. directly for a replacement.

GENERAL:PNEUMATIC TOOLS

Warning

- **Use appropriate air pressure.**

Excessively high air pressure will increase the number of revolutions or strokes, causing not only premature failure or breakage but also unexpected accident.

- **Connect tool to air supply line.**

There are various kinds of pipings running in factory in addition to pneumatic line (such as oxygen, nitrogen, and/or gas pipings). For this reason, always make sure that you are connecting to the pneumatic line.

- **Start tool properly.**

Turn the start switch OFF before connecting the tool to the hose leading to air supply line.

- **Always disconnect the tool from the connecting hose leading to air supply line before putting on or taking off accessories or before getting down to maintenance work.**

- **Avoid exposure to exhaust air.**

Exhaust air contains from pneumatic tool contains oil and contaminated moisture. Make sure that exhaust air will not be directed to your face or anyone else who may be around.

- **Keep tool off electricity.**

The pneumatic tool is not insulated against electricity. You may get electric shock if your pneumatic tool comes into contact with running electricity: keep it off electricity.

Caution

- **Handle tool carefully.**

Abusive use of tool would invite failure or accident. Do not throw or drop; do not give tool a shock.

- **Handle connecting hose carefully.**

Do not hold the tool by the connecting hose when carrying it; don't pull the connecting hose to disconnect.

INSTRUCTIONS FOR THIS TOOL

Warning

- **Wear protective glasses and a dustproof mask**

Operation generates chips and dust particles, etc. which may cause eye and/or respiratory injury: Always use PPE (Personal Protective Equipment) for eye and respiratory protection.

- **Wear vibration reducing and shock absorbing gloves.**

This is a power tool utilizing vibration. Wear vibration reducing and shock absorbing gloves. When your hands, fingers, arms, etc. feel discomfort during operations, immediately stop your work. Long hour operation should be prohibited, for it may cause vibration-induced disorder.

- **Use hearing protection gear.**

The tool generates loud noise. Always use ear plugs for hearing protection.

Take necessary measures to comply with the local regulatory requirements and laws with regard to noise level, or do better.

- **Do not run tool idly.**

Do not run the tool idly: It may not only cause damage to the tool but also may cause needles to fracture and fly out, possibly resulting in unexpected accident.

1. APPLICATION

- Remove slag and spatter from welding.

- Perform shot peening after welding.

- Remove rust, paint, cast sand from irregular metal-surface.

- Peel off adhered concrete. Clean brick surfaces and stone structures..

- The tool is used for operations in the difficult-to-operate areas where no other tool would be feasible: in narrow difficult-to-reach areas, extremely irregular surfaces, and grooves, cracks and other exterior surfaces without containers, etc.

2. RECEIVING INSPECTION

Upon unpacking, check to see that the shipment is complete without damage or oil leakage in transport.

Should you find any damage or short-shipment, please contact sales agent through which you have purchased your machine or an authorized dealer near you for corrective actions.

Packing List: Power Tool and Accessories

Model	Power tool	Standard Accessories
JEX-2800A	1 unit	ø3mm X 180mm; 28needles (on tool); ø4mm X 180mm; 14needles needle supporter ø4mm; 1 Instruction Manual; 1 Bushing PT3/8XNPT3/8; 1 Hose Nipple PT3/8X3/8; 1

3. AIR SUPPLY

3-1. Air Pressure

Adjust air pressure with the air regulator to the level appropriate for the pneumatic tool used.

Air pressure that is too low fails the tool to operate at full capacity.

Air pressure that is too high may cause damage to the tool..

3-2. Air Line (Fig.1)

Use a 9.5 mm (3/8") connecting hose between the compressor and the tool.

Drained water, etc., if flown into the tool, could cause tool failure. Install an air filter. between the compressor and the tool.

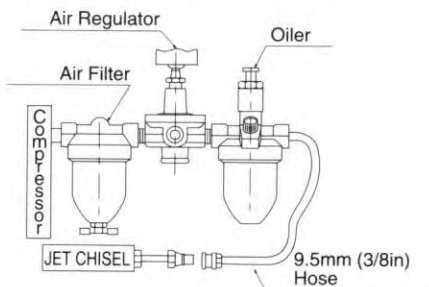


Fig.1

3-3. Lubrication

Install an oiler between the compressor and the tool. Use the machine oil #10. Failure to lubricate as required may result in damage to the tool. Use of oil that is too thick would deteriorate the performance of tool.

3-4. Short hose fittings

Do not fix a coupling directly on the tool. Make sure that after a short hose is fixed with the Hose Nipple PT3/8X3/8 including in the accessories, then the coupling be attached. If the coupling is directly fixed, it would be damaged by the vibration and the life would be shortened.

4. OPERATION

⚠ Warning

• Do not run tool idly.

Do not run the tool idly: It may not only cause damage to the tool but also may cause needles to fracture and fly out, possibly resulting in unexpected accident.

4-1. Start and Stop (Fig.2)

- (1) Check that a Throttle Lever is turned off and connecting the tool to the hose leading to air supply line.
- (2) Hold the tool and turn on the Throttle Lever to start.
- (3) When the Throttle Lever is released, it will automatically turn off.

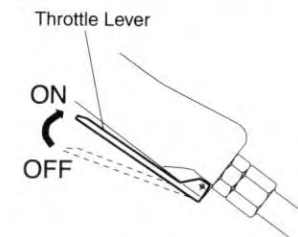


Fig.2

4-2. Operation

You do not have to press the Needles against the workpiece with much force. Keep the Needle in contact with the work surface and apply force as if you were just trying to maintain solid contact between the Needles and workpiece. Too much force, if applied, could result in damage to the Needles, such as bending and/or breakage, or even damage to the tool itself.

The Needles will closely follow any kind of configurations the workpiece surfaces may have, making it possible to get the work done with ease, speed and accuracy.

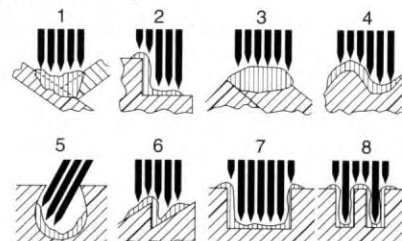


Fig.3

Needles for Jet Chisel

Three types of needles are available for Jet Chisel: i.e. $\phi 2$, $\phi 3$, $\phi 4$. The table below shows the needles that are compatible with each model. Use these needles in accordance with your applications. (Note: ϕ represents diameter.)

	$\phi 2$	$\phi 3$	$\phi 4$
JEX-2800A	66pcs	28pcs	14pc

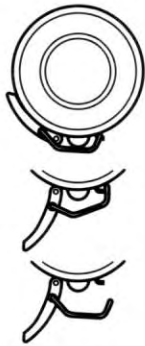
Caution: The needle supporter that matches with the needle diameter is additionally required.

4-3. Changing Needles

Warning

Before changing Needles, turn off the Throttle Lever and disconnect the air supply line.

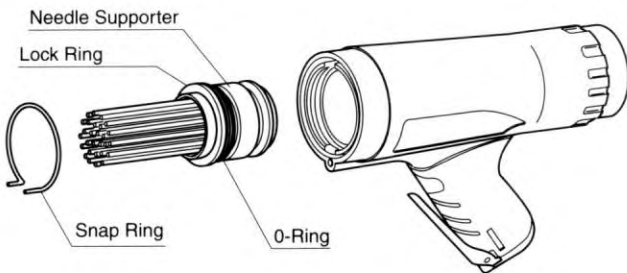
(1) To disassemble Needle Guide Ass'y, pull up the Clamp Lever and remove the Clamp Spring from the hook on the Guide. Take out the Needle Guide from the tool body. (Fig.2)



[Fig. 4]

(2) Remove the Snap Ring by pinching the projected hooks.

(3) Then you can take off the Needle Supporter together with other parts by pulling out the edge of needles. (Fig.3)



[Fig. 5]

(4) After replacing with new needles, reverse assembly procedure.

Note: When you assemble the Snap Ring, make sure it fits into the slot on the Cylinder.

4-4. Storing Tool

Warning

When tool is not used, store it out of reach of children.

When the tool is not used, store it in a dry area. If the tool is left alone as it has been used without preparation for storage, ambient moisture will remain inside the tool, which will leave it susceptible to rusting. After finishing your work, add the machine oil #10 through the tool coupler and run the tool for a while before storage.

5. THREAD SIZE OF HOSE FITTING

The product comes with a metal fitting with PT thread. Connect the Bushing PT thread X NPT thread containing standard accessories. If you would like to have American NPT thread.

6. OPTIONAL ACCESSORIES

We can supply 2, 3, and 4 mm diameter needles for JEX-2800A.

Change needles according to the type of your work.

Part No.	Part Name	Q'ty
TA98781	Needles ϕ 2 X 180mm	100 pcs.
TA9A213	Needles ϕ 2 X 300mm	50 pcs.
TA9A214	Needles ϕ 2 X 500mm	50 pcs.
TA98782	Needles ϕ 3 X 180mm	100 pcs.
TA9A216	Needles ϕ 3 X 300mm	50 pcs.
TA9A217	Needles ϕ 3 X 500mm	50 pcs.
TA9A218	Needles ϕ 3 X 800mm	50 pcs.
TA98783	Needles ϕ 4 X 180mm	50 pcs.
TA9A220	Needles ϕ 4 X 300mm	50 pcs.
TA9A221	Needles ϕ 4 X 500mm	50 pcs.
TP01499	Needles Supporter ϕ 2	1

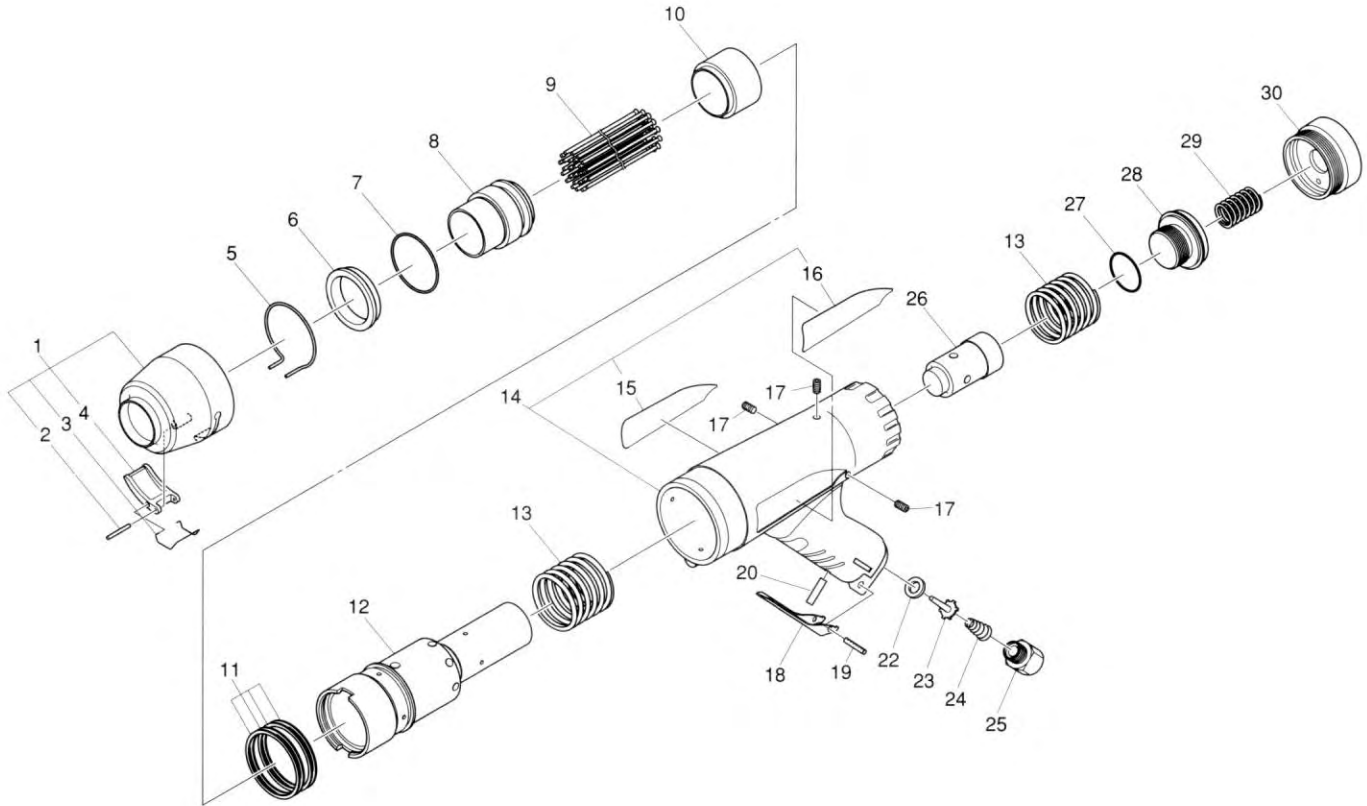
7. ORDERING PARTS

When ordering parts from our agency, please be sure to give them part number, part name and quantities.

8. EXPLODED DIAGRAM : JEX-2800A PARTS LIST

Warning

This diagram is for your reference purpose only. The user should not take machine or tool apart. When repair or replacement part becomes necessary, please contact a local Nitto dealership or service station near you.



The part numbers with () are included in the Ass'y parts written above them.

No.	Parts No.	Parts Name	Q'ty	Price
1	TB05957	Needle Guide Ass'y	1SET	
2	(TP13893)	Spring Pin 3 X 22	1	
3	(TQ10583)	Clump Spring	1	
4	(TQ10555)	Clump Lever	1	
5	TQ10246	Snap Ring	1	
6	TQ10247	Lock Ring	1	
7	TQ10562	O-Ring G-40	1	
8	TP01461	Needle Supporter ϕ 3	1	
9	TP00341	Needle ϕ 3 X 180	28	
10	TP00399	Throttle Anvil	1	
11	TQ10241	Back UP Ring	4	
12	TQ10240	Cylinder	1	
13	TQ10239	Spring 3.5 X 44 X 38	2	
14	TB07531	Housing Ass'y A	1SET	
15	(TQ10234)	Label Warning	1	
16	(TQ11249)	Label Name	1	
17	TP08684	Hex.Socket Screw 4 X 8	3	
18	TP01557	Lever	1	
19	TP01802	Spring Pin 3 X 28	1	

No.	Parts No.	Parts Name	Q'ty	Price
20	TQ10450	Parallel Pin 5 X 35	1	
22	TQ04671	Seal Sheet 9 X 13.9 X 2	1	
23	TQ04664	Valve	1	
24	TQ04665	Conical Spring 0.8X6.4X11.6X21.8	1	
25	TQ10236	Bushing PT3/8 X M16	1	
26	TP00395	Piston	1	
27	CP21603	O-Ring JASO-1028	1	
28	TQ11251	Rear Bolt	1	
29	TQ10238	Spring 2.6 X 14.3 X 24	1	
30	TQ11250	Rear Cap	1	

Accessories

	TQ02350	Bushing PT3/8 X NPT3/8	1	
	TQ03262	Hose Nipple PT3/8 X 3/8	1	
	—	Needle ϕ 4 X 180	14	
	TP01462	Needle Supporter ϕ 4	1	
	TQ11252	Instruction Manual	1	