

# INSTRUCTION MANUAL

## PNEUMATIC NEEDLE SCALER

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

## JET CHISEL

Model AJC-16, JC-16, JT-20, JEX-20, JEX-24 JEX-28, JEX-2800A

### PROFESSIONAL TOOL



Model  
**AJC-16**



Model  
**JC-16**



Model  
**JT-20**



Model  
**JEX-20**



Model  
**JEX-24**



Model  
**JEX-28**



Model  
**JEX-2800A**

### Specifications

Model		AJC-16	JC-16	JT-20	JEX-20	JEX-24	JEX-28	JEX-2800A
Maximum Operating Pressure	MPa	0.6						
Air Consumption (No Load)	m <sup>3</sup> /min	0.07	0.15	0.2	0.2	0.27	0.35	0.43
Rated Speed (No Load)	r/min (min <sup>-1</sup> )	6000	4000	4000	4000	4000	4500	3700
Sound Pressure Level (Load)	dB(A)	88	90	92	93	93	95	95
Sound Power Level (Load)	dB(A)	99	101	103	104	104	106	106
Vibration Level [Uncertainty K]	m/s <sup>2</sup> [m/s <sup>2</sup> ]	4.8 [0.97]	11.5 [1.60]	15.5 [2.0]	9.0 [1.40]	28 [3.3]	17.5 [2.2]	14.5 [1.90]
Mass (Weight)	kg	0.98	1.4	2.4	2.75	2.7	3.5	3.3
Thread Size of Air Inlet		Rc3/8						

Due to continuous product development/improvement the specifications and configurations in this document are subject to change without prior notice.



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

Original Instructions

Thank you very much for your purchase of this **Nitto Kohki product**.

Before using your tool, 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 Åtreförsäljare eller distributör om manualer pá svenska.
- **Danish** : Venligst henvend Dem til den danske distributør for instructions manualer.
- **Polish** : Prosze pytac swojego dealera lub dystrybutora o instrukcje obslugi w jezyku localnym.
- **中文** : 請向當地供應商或經銷商詢問中文使用說明書

<b>CONTENTS</b>	<b>page</b>
IMPORTANT SAFETY INSTRUCTIONS .....	2
GENERAL: TOOLS .....	2
GENERAL: PNEUMATIC TOOLS .....	3
INSTRUCTIONS FOR THIS TOOL .....	4
1. USAGE .....	4
2. CHECK THE CONTENTS OF THE PACKAGE .....	4
3. AIR SUPPLY .....	5
4. HOW TO OPERATE THE TOOL .....	5
5. CHANGING NEEDLES .....	6
6. THREAD SIZE OF HOSE FITTING .....	7
7. STORAGE .....	7
8. OPTIONAL PARTS .....	8
9. ORDERING SERVICE PARTS .....	8
10. EXPLODED DIAGRAM : AJC-16 .....	9
11. EXPLODED DIAGRAM : JC-16 .....	10
12. EXPLODED DIAGRAM : JT-20 .....	11
13. EXPLODED DIAGRAM : JEC-20 .....	12
14. EXPLODED DIAGRAM : JEX-24 .....	13
15. EXPLODED DIAGRAM : JEX-28 .....	14
16. EXPLODED DIAGRAM : JEX-2800A .....	15

## PICTOGRAM



Warning: It might be dangerous to operate the tool if the instructions supplied are not followed.



Using this tool improperly could result in serious injury. Read the instruction manual before use.



Always wear suitable eye protection.



Always wear suitable hearing protection.



Always wear respiratory protective equipment (PPE).



Always wear protective gloves for protection of hands from vibration and shock.

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



### **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 tool setup, operation and maintenance.

# IMPORTANT SAFETY INSTRUCTIONS

When using the tool, please observe the safety precautions below to prevent possible accident or injury.

## GENERAL: TOOLS



## WARNING

### TO OPERATORS

- **Wear proper clothing for the type of work being done.**  
Take care so that clothing, ties, hair, etc. will not become entangled with the moving parts. If items become entangled it will cause the operator to be pulled towards the tool and lead to possible cause of accident or injury.
- **Always wear suitable eye protection.**  
Remember, regular glasses are not safety glasses. The lenses are only shock resistant, which will not give you sufficient eye protection you may need in your working environment.
- **Always wear suitable hearing protection.**
- **Wear respiratory protective equipment (PPE).**  
Wear respiratory protective equipment (PPE) when working in an environment where dust particles are generated in operation.
- **Always wear suitable protective gloves.**
- **Avoid working posture that is too stressful.**  
Always ensure a firm footing and well balanced posture.
- **Do not operate the tool if you are too tired.**
- **Never touch any moving parts of the tool 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 away from the work area.**  
Keep children and unauthorized people away from the work area to avoid accident or injury.

### BEFORE OPERATION

- **Inspect tool before use.**  
Before using, check that screws are securely tightened, that any protective cover or guard is securely in place, other parts are free from damage and that the tool runs as it should.  
Check that moving parts 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 the 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**  
An improperly mounted cutter may fly out, causing possible damage to the tool or injury to the operator.
- **Always remove spanner, wrench, etc., once adjustment has been made with them.**
- **Use a tool appropriate for the application.**  
Avoid heavy-duty application that is beyond the capacity of tool.
- **Do not use the tool for purposes other than what it is designed for.**
- **Do not abuse tool.**  
Use tool in accordance with the specifications: you'll get the most out of it while ensuring safety.
- **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.**  
Disassembly or modification carried out without the supervision of a qualified or authorized service engineer could result in an accident or injury.
- **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 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 tool – that is, determine whether it can still perform its normal functions.  
Check to see that the linkage of the moving parts is OK, that all parts are OK without damage, that they are properly mounted, and that the 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 an authorized Nitto Service Center.**  
For repair or parts replacement, please contact the sales agent through which you have purchased your tool or an authorized dealer near you.
- **Use only Nitto genuine parts.**  
Use of improper parts may result in serious accident. To obtain a Nitto genuine part, consult this Manual or contact the sales agent from which you have purchased your tool directly.
- **Do not detach label or nameplate from tool.**  
When a label/nameplate gets damaged, worn or becomes missing, contact the sales agent through which you have purchased your tool or Nitto Kohki Co. Ltd, directly for a replacement.

### DISPOSAL

When a tool is taken permanently out of service, it is advised that the tool is disassembled, degreased and parts separated by material and recycled locally in the appropriate manner.

## GENERAL: PNEUMATIC TOOLS

### WARNING

- **Use appropriate air pressure.**  
Excessively high air pressure will increase the tool number of revolutions or strokes causing not only potential premature failure/breakage but could also lead to an unexpected accident or injury.
- **Connect tool to air supply line.**  
There are various types of pipes running in a factory in addition to the pneumatic line (such as oxygen, nitrogen, gas and water). For this reason, always ensure that you are connecting to the pneumatic line.
- **Start tool properly.**  
Turn the start switch OFF before connecting to the air supply line.
- **Always disconnect the tool from the air supply line before putting on/taking off any accessory and prior to carrying out any maintenance work.**
- **Avoid exposure to exhaust air.**  
Pneumatic tool exhaust air contains oil and contaminated moisture. Make sure the exhaust air is not directed towards your face or anyone else within the work area.
- **Keep tool off electricity.**  
This pneumatic tool is not electrically insulated. To avoid a potential electric shock do not use where there is a possibility of coming into contact with live electricity.

### CAUTION

- **Handle tool carefully.**  
Abusive use of tool could invite failure or accident. Do not throw, drop or shock the tool.
- **Handle air hose carefully.**  
Do not carry the tool by the air hose. Do not pull the air hose to disconnect.

# INSTRUCTIONS FOR THIS TOOL

## About Your 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.
- **Always wear suitable hearing protection.**  
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 operate tool at no load.**  
Do not operate the tool at no load: 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. USAGE

- 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. CHECK THE CONTENTS OF THE PACKAGE

Check the contents and make sure that the tool does not have any damage which may have occurred during transportation. The contents should correspond to the list as follows. In case of damage/missing parts, please contact the sales agent from whom you purchased the tool.

### AJC-16

Package Contents	Qty	Check
AJC-16	1set	
O.D.3×180mm;(on tool)	3	
O.D.3×180mm	3	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

### JC-16

Package Contents	Qty	Check
JC-16	1set	
Needle O.D.2×150mm;(on tool)	29	
Needle O.D.2×150mm	29	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

### JT-20

Package Contents	Qty	Check
JT-20	1set	
Needle O.D.3×180mm;(on tool)	12	
Needle O.D.3×180mm	12	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

### JEX-20

Package Contents	Qty	Check
JEX-20	1set	
Needle O.D.3×180mm;(on tool)	12	
Needle O.D.3×180mm	12	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

### JEX-24

Package Contents	Qty	Check
JEX-24	1set	
Needle O.D.3×180mm;(on tool)	23	
Hex. Socket Screw Key 6	1	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	



### JEX-28

Package Contents	Qty	Check
JEX-28	1set	
Needle O.D.3×180mm;(on tool)	28	
Needle O.D.4×180mm	14	
Needle Supporter O.D.4	1	
Hex. Socket Screw Key 6	1	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

### JEX-2800A

Package Contents	Qty	Check
JEX-2800A	1set	
Needle O.D.3×180mm;(on tool)	28	
Needle O.D.4×180mm	14	
Needle Supporter O.D.4	1	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

## 3. AIR SUPPLY

### 3-1. Air Pressure

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

Air pressure that is too low will stop the tool from operating 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") I.D. 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.

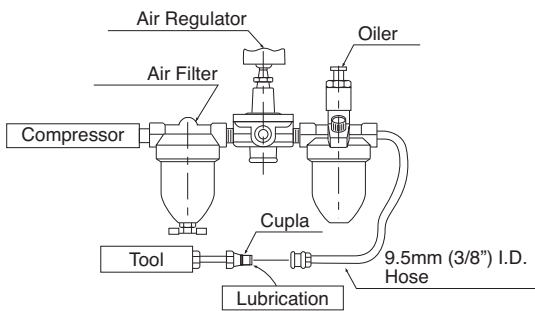


Fig. 1

### 3-3. Lubrication

Install an oiler between the compressor and the tool. Use the machine oil ISO VG-10. Failure to lubricate as required may result in damage to the tool. Use of oil that is too thick will reduce the performance of the 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 R3/8X3/8 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. HOW TO OPERATE THE TOOL

### ! WARNING

- Do not operate tool at no load. Do not operate the tool at no load: 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

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

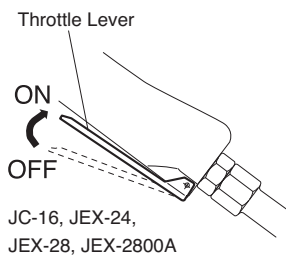


Fig. 2

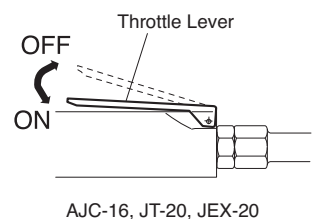


Fig. 3

### 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.

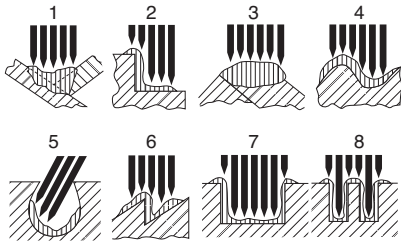


Fig. 4

#### 4-3. Needle for JET CHISEL

Three types of Needles are available for JET CHISEL: i.e. 2, 3 and 4mm outer diameter (O.D.). The table below shows the Needles that are compatible with each model. Use these needles in accordance with your applications. (Note: represents diameter.)

Model	O.D.2	O.D.3	O.D.4
AJC-16	7pcs	3pcs	-
JC-16	29pcs	-	-
JT-20	29pcs	12pcs	-
JEX-20	29pcs	12pcs	-
JEX-24	53pcs	23pcs	-
JEX-28	66pcs	28pcs	14pcs
JEX-2800A	66pcs	28pcs	14pcs

**Caution:** The Needle Supporter that matches with the needle diameter is additionally required.

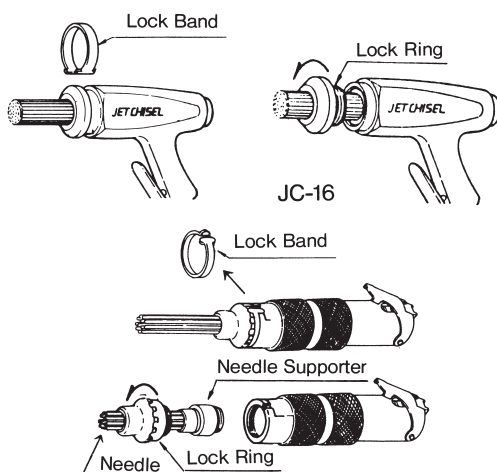
## 5. CHANGING NEEDLES

### ⚠ WARNING

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

#### 5-1. JC-16, JT-20, JEX-20, AJC-16

- (1) Remove the Lock Band from the groove.
- (2) Loosen the Lock Ring and remove.



JT-20, JEX-20, AJC-16  
Fig.5

- (3) Take out the Needle Supporter by pulling out the Needles.

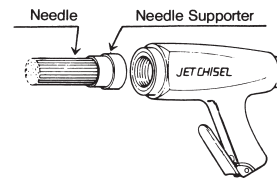


Fig. 6

- (4) Extract the Needles. Whenever the Needles are damaged during operation, they must be changed.
- (5) After changing Needles, assemble in the reverse manner of disassembly.

### ⚠ Caution

#### Changing the Needle of AJC-16

The Needle is consumable parts, however, since AJC -16 consists of 3 pieces of Needles, even if one piece has been damaged, the Needle should be changed or replenished.

In this case set them after making the lengths of three Needles almost even through using grinders etc.

#### 5-2. JEX-24

- (1) Unfasten the Hex. Socket Head Cap Screw 8x35 using the Hex. Wrench Key 6 and pull out the Needle Guide.

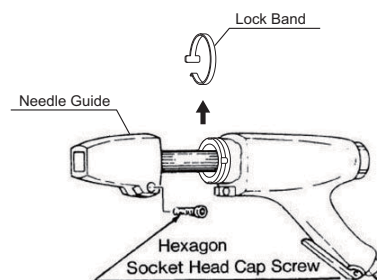


Fig. 7

- (2) Remove the Lock Band from the groove.
- (3) Loosen the Lock Ring and remove. Take out the Needle Supporter by pulling out the Needles.

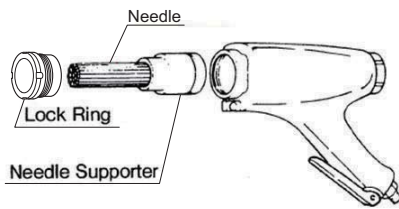


Fig. 8

- (4) Extract the Needles. Whenever the Needles are damaged during operation, they must be changed.
- (5) After changing Needles, assemble in the reverse manner of disassembly.

### 5-3. JEX-28

- (1) Unfasten the Hex. Socket Head Cap Screw 8X24 of the Needle Guide with the Hex. Socket Screw Key 6 and pull out the Needle Guide.

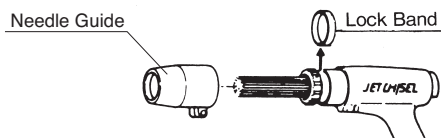


Fig. 9

- (2) Remove the Lock Band from the groove.
- (3) Loosen the Lock Ring and remove. Take out the Needle Supporter by pulling out the Needles.

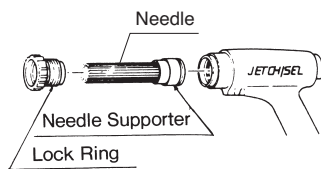


Fig. 10

- (4) Extract the Needles. Whenever the Needles are damaged during operation, the Needles must be changed.
- (5) After changing Needles, assemble in the reverse manner of disassembly.

### 5-4. JEX-2800A

- (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. 11)

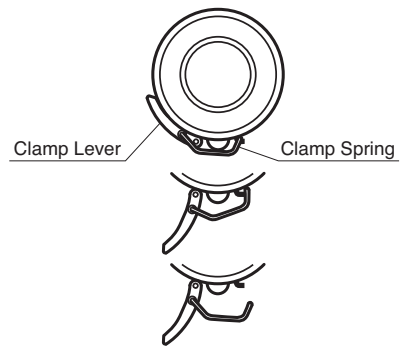


Fig. 11

- (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. 12)

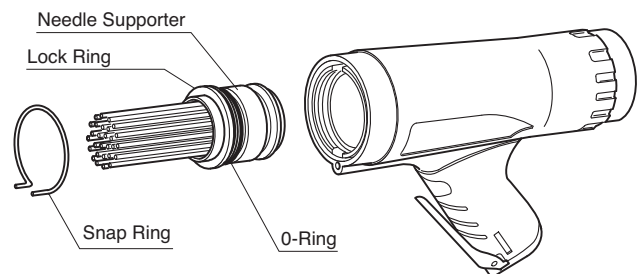


Fig. 12

- (4) After changing with new Needles, reverse assembly procedure.

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

## 6. THREAD SIZE OF HOSE FITTING

The product comes with a metal fitting with Rc (metric) thread. Connect the Bushing R thread x NPT thread included as standard accessories, if you would like to have American NPT thread instead.

## 7. STORAGE

### ⚠ CAUTION

- **When tool is not used, store it out of children.**  
Avoid storing the tool in a location subject to high humidity. If the tool is left as it is used, residual moisture on the inside can cause rusting. Before storing, and after operation, oil the tool at the air inlet with machine oil ISO VG-10 and run it for a short time.



## 8. OPTIONAL PARTS

We can Supply 2, 3 and 4mm diameter Needles for JET CHISEL.

Change Needles according to the type of your work.

Part No.	Description	Qty	Model
TA98780	Needles O.D.2×150mm	100pcs	JC-16,AJC-16
TA98781	Needles O.D.2×180mm	100pcs	
TA9A213	Needles O.D.2×300mm	50pcs	JT-20,
TA9A214	Needles O.D.2×500mm	50pcs	JEX-20,
TA98782	Needles O.D.3×180mm	100pcs	JEX-24,
TA9A216	Needles O.D.3×300mm	50pcs	JEX-28,
TA9A217	Needles O.D.3×500mm	50pcs	JEX-2800A
TA9A218	Needles O.D.3×800mm	50pcs	
TA98782	Needles O.D.3×180mm	100pcs	AJC-16
TA98783	Needles O.D.4×180mm	50pcs	JEX-28,
TA9A220	Needles O.D.4×300mm	50pcs	JEX-2800A
TA9A221	Needles O.D.4×500mm	50pcs	
TP00338	Needle Supporter O.D.2	1	JT-20,JEX-20
TP02244	Needle Supporter O.D.2	1	JEX-24
TP01499	Needle Supporter O.D.2	1	JEX-28, JEX-2800A
TQ05210	Needle Supporter O.D.2	1	AJC-16

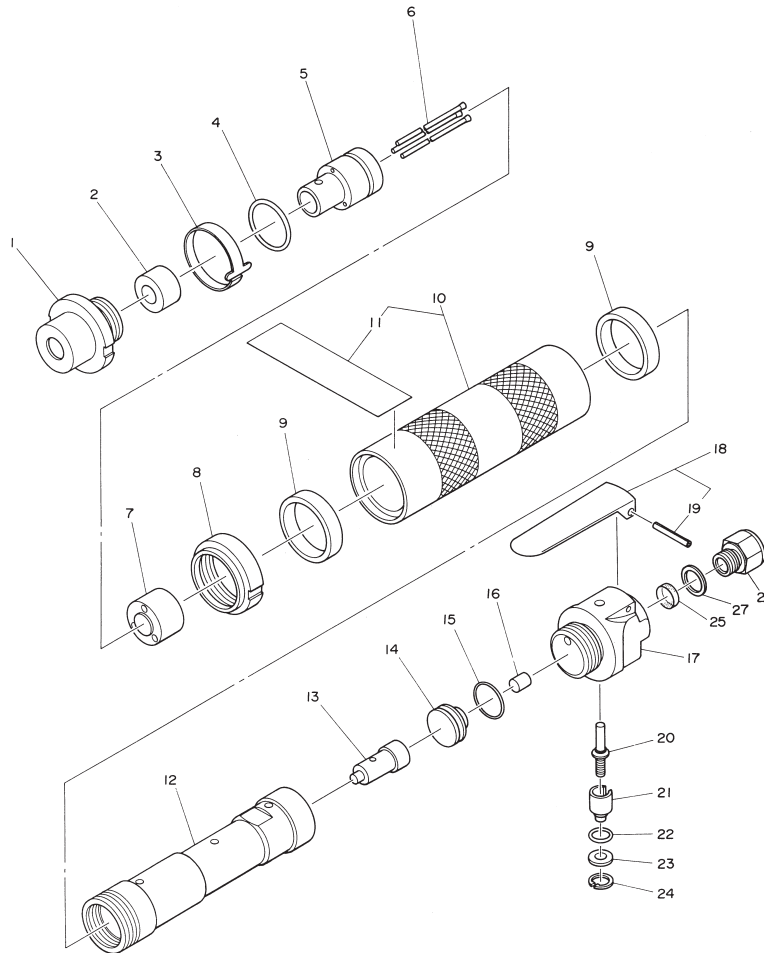
## 9. ORDERING SERVICE PARTS

For further operational and handling information or for replacement of parts and components, contact the company from whom you purchased the tool or an authorized dealer. In ordering parts and components give each part number, part name and quantity required. Use only NITTO genuine parts.

## 10. EXPLODED DIAGRAM : AJC-16

### WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.  
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
Improper service and repair can cause accidents and service injuries.  
Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TQ04558	Lock Ring	1	
2	TQ04559	Muffler	1	
3	TQ03429	Lock Band	1	
4	CP01453	O-Ring P-22A	1	
5	TQ04554	Needle Supporter O.D.3	1	
6	—	Needle O.D.3×180mm	3	
7	TQ04562	Throttle Anvil	1	
8	TQ04557	Lock Nut	1	
9	TQ04556	Urethane Washer 30×34×6	2	
10	TB08708	Cover Ass'y	1set	
11	(TQ12689)	Label Warning	1	
12	TQ04563	Cylinder	1	
13	TQ03427	Piston	1	
14	TQ04553	End Plate	1	
15	TP13275	O-Ring P-16	1	
16	TQ04564	Cushion	1	
17	TQ04966	Valve Body	1	
18	TB03778	Lever Ass'y	1set	

No.	Part No.	Description	Qty	Price
19	(TP00460)	Spring Pin 3×22AW	1	
20	TA93070	Valve Stem Ass'y	1set	
21	TP06325	Adjust Valve	1	
22	TP11997	O-Ring KS-7	1	
23	TP06326	Spacer 6×12×1.2	1	
24	TP03695	Internal Retaining Ring C-12	1	
25	TQ04929	Filter	1	
26	TQ02349	Bushing M16×Rc3/8	1	
27	TQ05564	Washer 16.2×21×1	1	

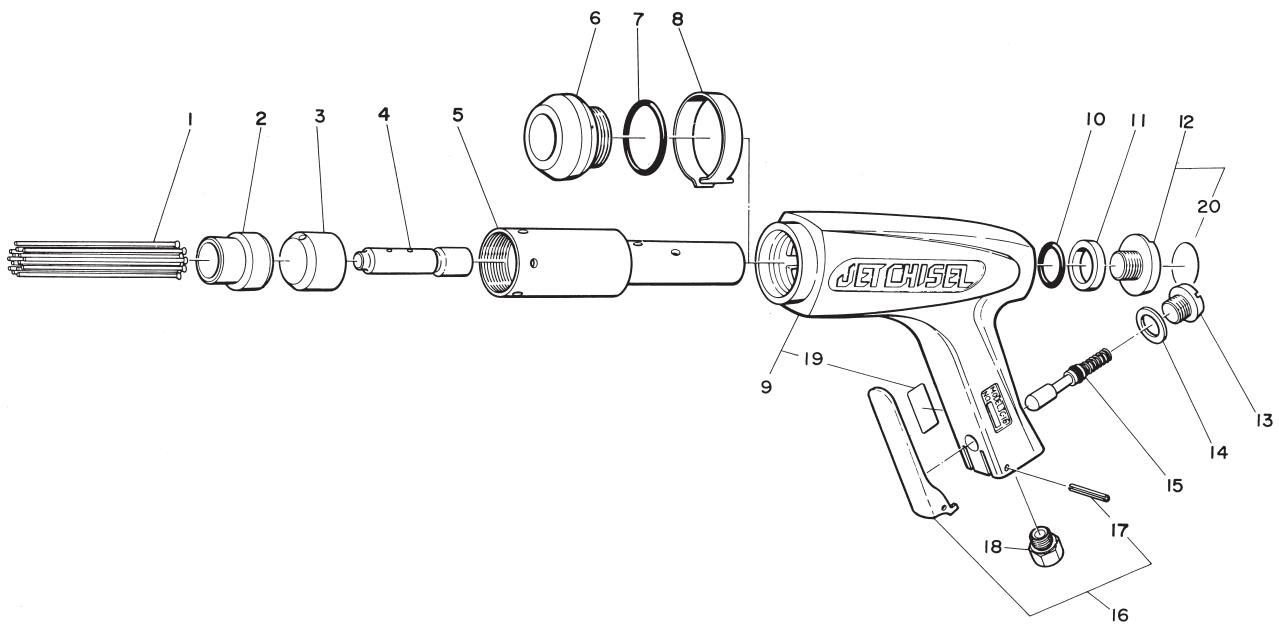
#### Accessories

No.	Part No.	Description	Qty	Price
	—	Needle O.D.3×180mm	3	
	TQ02350	Bushing R3/8×NPT3/8	1	
	TQ03262	Hose Nipple R3/8×3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	

## 11. EXPLODED DIAGRAM : JC-16

### WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.  
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
Improper service and repair can cause accidents and service injuries.  
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The part numbers with ( ) are included in the Ass'y parts written above them.

No.	Part No.	Description	Qty	Price
1	—	Needle O.D.2×150mm	29	
2	TP00290	Needle Supporter O.D.2	1	
3	TP00289	Throttle Anvil	1	
4	TP00288	Piston	1	
5	TP00287	Cylinder	1	
6	TP00292	Lock Ring	1	
7	TP11987	O-Ring KS-24	1	
8	TP00295	Lock Band	1	
9	TB08709	Housing Sub Ass'y	1set	
19	(TQ12611)	Label Warning CE Mark	1	
10	TP11986	O-Ring KS-19	1	
11	TP03336	Rear Washer	1	
12	TB08710	Rear Bolt Ass'y	1set	
20	(TQ12687)	Label Warning	1	

No.	Part No.	Description	Qty	Price
13	TP00389	Valve Cap	1	
14	TP00388	Valve Packing	1	
15	TA90037	Throttle Valve Ass'y	1set	
16	TB00426	Throttle Lever Ass'y	1set	
17	(TQ00563)	Spring Pin 3×20	1	
18	TQ02349	Bushing M16×Rc3/8	1	

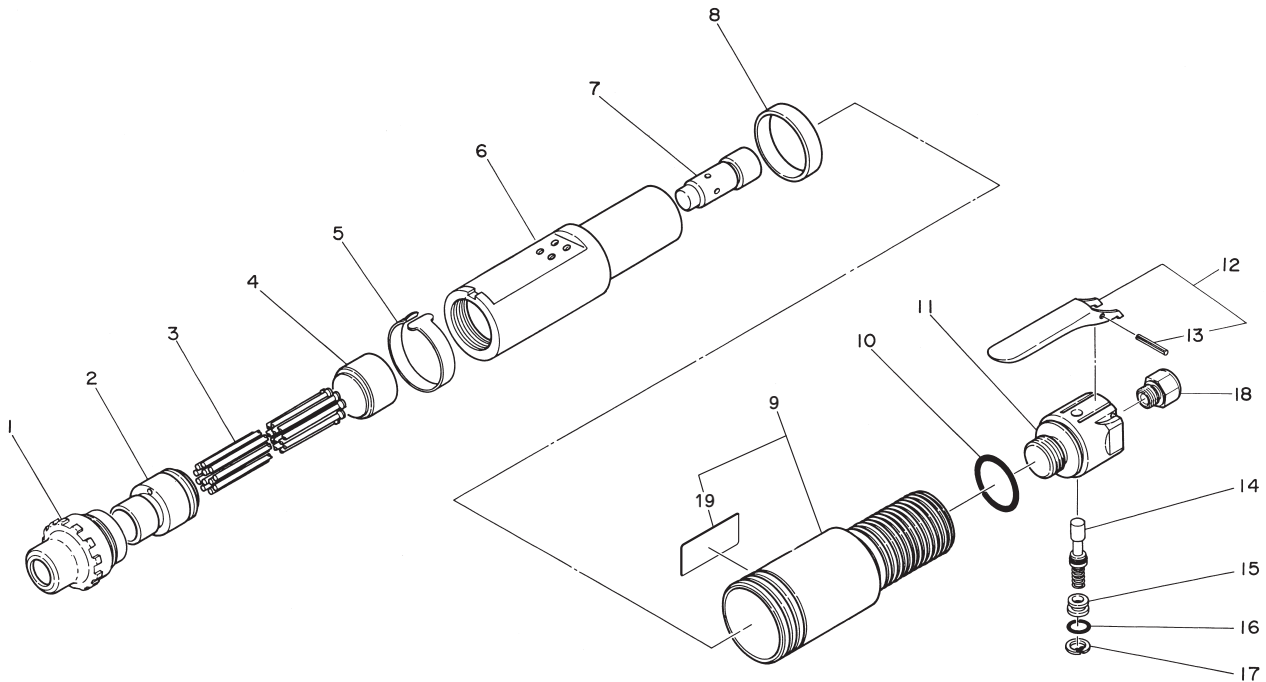
#### Accessories

No.	Part No.	Description	Qty	Price
	—	Needle O.D.2×150mm	29	
	TQ02350	Bushing R3/8×NPT3/8	1	
	TQ03262	Hose Nipple R3/8×3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	

## 12. EXPLODED DIAGRAM : JT-20

### WARNING

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Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
Improper service and repair can cause accidents and service injuries.  
Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TP14689	Lock Ring	1	
2	TP00337	Needle Supporter O.D.3	1	
3	—	Needle O.D.3×180mm	12	
4	TP00336	Throttle Anvil	1	
5	TP14593	Lock Band	1	
6	TA99176	Cylinder Ass'y	1set	
7	TP00332	Piston	1	
8	TP15020	Stopper	1	
9	TB08850	Cover Ass'y	1set	
19	(TQ12995)	Label Warning CE Mark	1	
10	LP12795	O-Ring G-30	1	
11	TP15230	Valve Body	1	
12	TA96324	Throttle Lever Ass'y	1set	
13	(TP00327)	Spring Pin 3×25	1	

No.	Part No.	Description	Qty	Price
14	TA98983	Throttle Valve Ass'y	1set	
15	TP14601	Valve Cap	1	
16	TP14604	O-Ring S-10	1	
17	TP03695	Internal Retaining Ring C-12	1	
18	TQ02349	Bushing M16×Rc3/8	1	

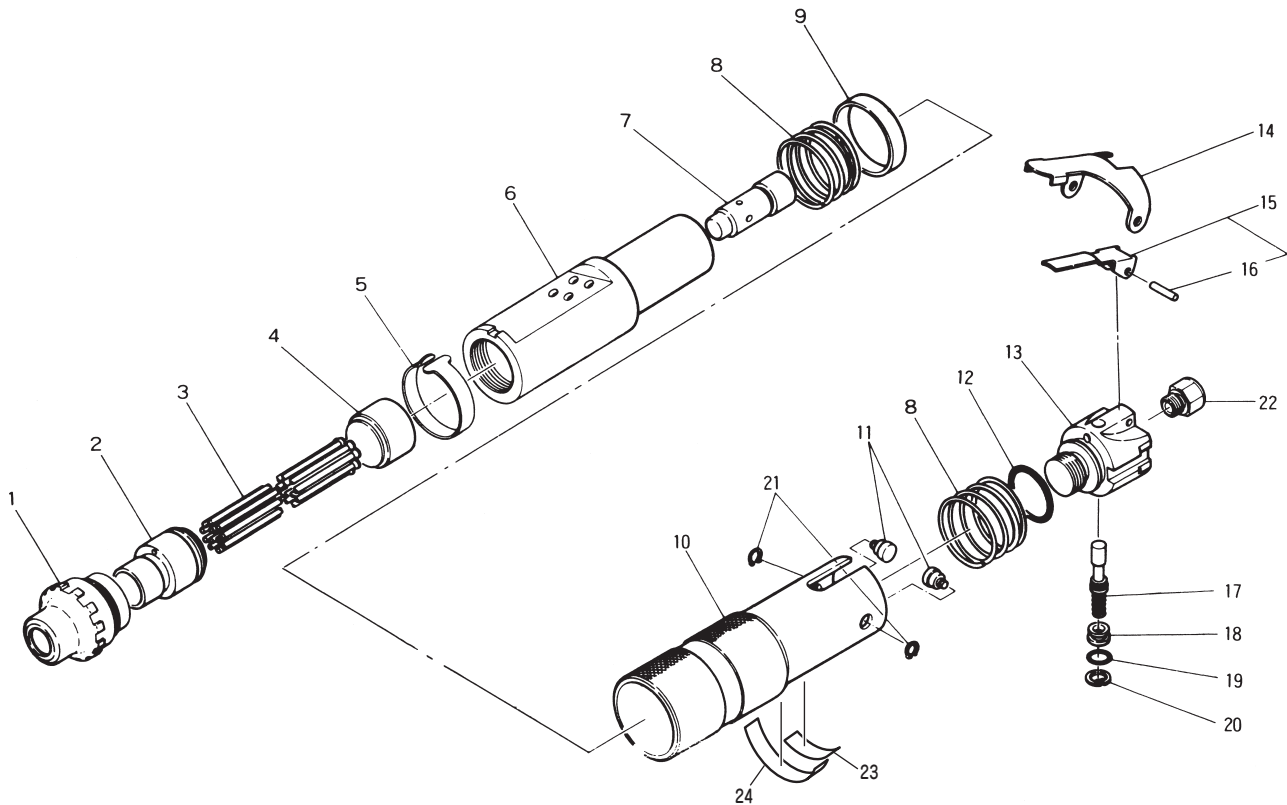
#### Accessories

No.	Part No.	Description	Qty	Price
	—	Needle O.D.3×180mm	12	
	TQ02350	Bushing R3/8×NPT3/8	1	
	TQ03262	Hose Nipple R3/8×3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	

## 13. EXPLODED DIAGRAM : JEX-20

### WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.  
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
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Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TP14689	Lock Ring	1	
2	TP00337	Needle Supporter O.D.3	1	
3	—	Needle O.D.3×180mm	12	
4	TP00336	Throttle Anvil	1	
5	TP14593	Lock Band	1	
6	TA99176	Cylinder Ass'y	1set	
7	TP00332	Piston	1	
8	TP14594	Spring 2.2×40.5×34	2	
9	TP14595	Stopper	1	
10	TB08713	Cover Sub Ass'y	1set	
23	(TQ12611)	Label Warning CE Mark	1	
24	(TQ12690)	Label Warning	1	
11	TP14599	Level Pin	2	
12	LP12795	O-Ring G-30	1	
13	TP15229	Valve Body	1	
14	TP14597	Throttle Lever	1	

No.	Part No.	Description	Qty	Price
15	TA98982	Throttle Lever Ass'y	1set	
16	(TP01921)	Spring Pin 3×18	1	
17	TA98983	Throttle Valve Ass'y	1set	
18	TP14601	Valve Cap	1	
19	TP14604	O-Ring S-10	1	
20	TP03695	Internal Retaining Ring C-12	1	
21	TP02853	Retaining Ring E-4	2	
22	TQ02349	Bushing M16×Rc3/8	1	

#### Accessories

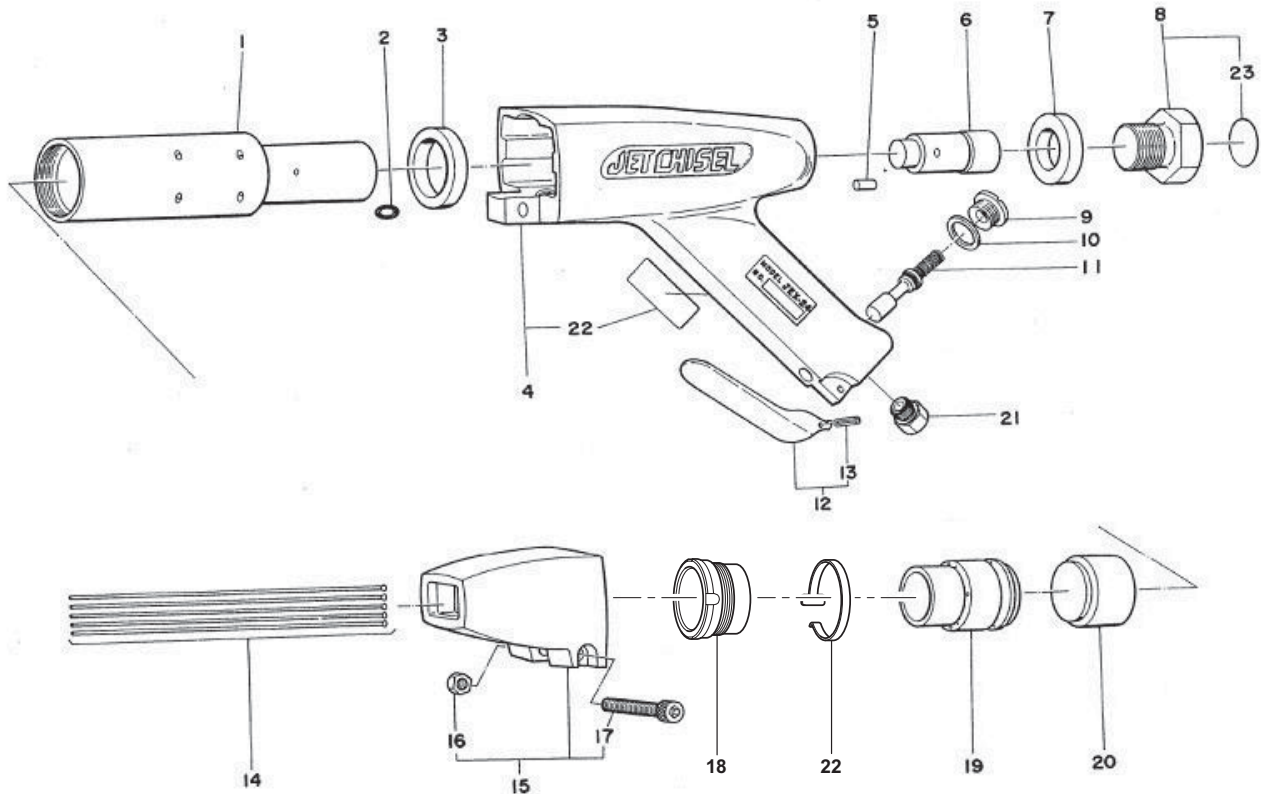
No.	Part No.	Description	Qty	Price
	—	Needle O.D.3×180mm	12	
	TQ02350	Bushing R3/8×NPT3/8	1	
	TQ03262	Hose Nipple R3/8×3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	



## 14. EXPLODED DIAGRAM : JEX-24

### WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.  
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
Improper service and repair can cause accidents and service injuries.  
Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TQ13402	Cylinder	1	
2	TP11992	O-Ring KS-9	1	
3	TP02250	Front Washer	1	
4	TB08714	Housing Sub Ass'y	1set	
22	(TQ12611)	Label Warning CE Mark	1	
5	TP01478	Cylinder Lock Pin	1	
6	TP02242	Piston	1	
7	TP02249	Rear Washer	1	
8	TB08715	Rear Bolt Ass'y	1	
23	(TQ12687)	Label Warning	1	
9	TP00389	Valve Cap	1	
10	TP00388	Valve Packing	1	
11	TA90037	Throttle Valve Ass'y	1set	
12	TB00427	Throttle Lever Ass'y	1set	
13	(TQ00563)	Spring Pin 3x20	1	
14	—	Needle O.D.3x180mm	23	
15	TA93189	Needle Guide Ass'y	1set	

No.	Part No.	Description	Qty	Price
16	(TQ01484)	Small Hex. Nut M8	1	
17	(TP16284)	Hex. Socket Head Cap Screw 8x45	1	
18	TQ13385	Lock Ring	1	
19	TP02245	Needle Supporter O.D.3	1	
20	TP02243	Throttle Anvil	1	
21	TQ02349	Bushing M16xRc3/8	1	
22	TQ13386	Lock Band	1	

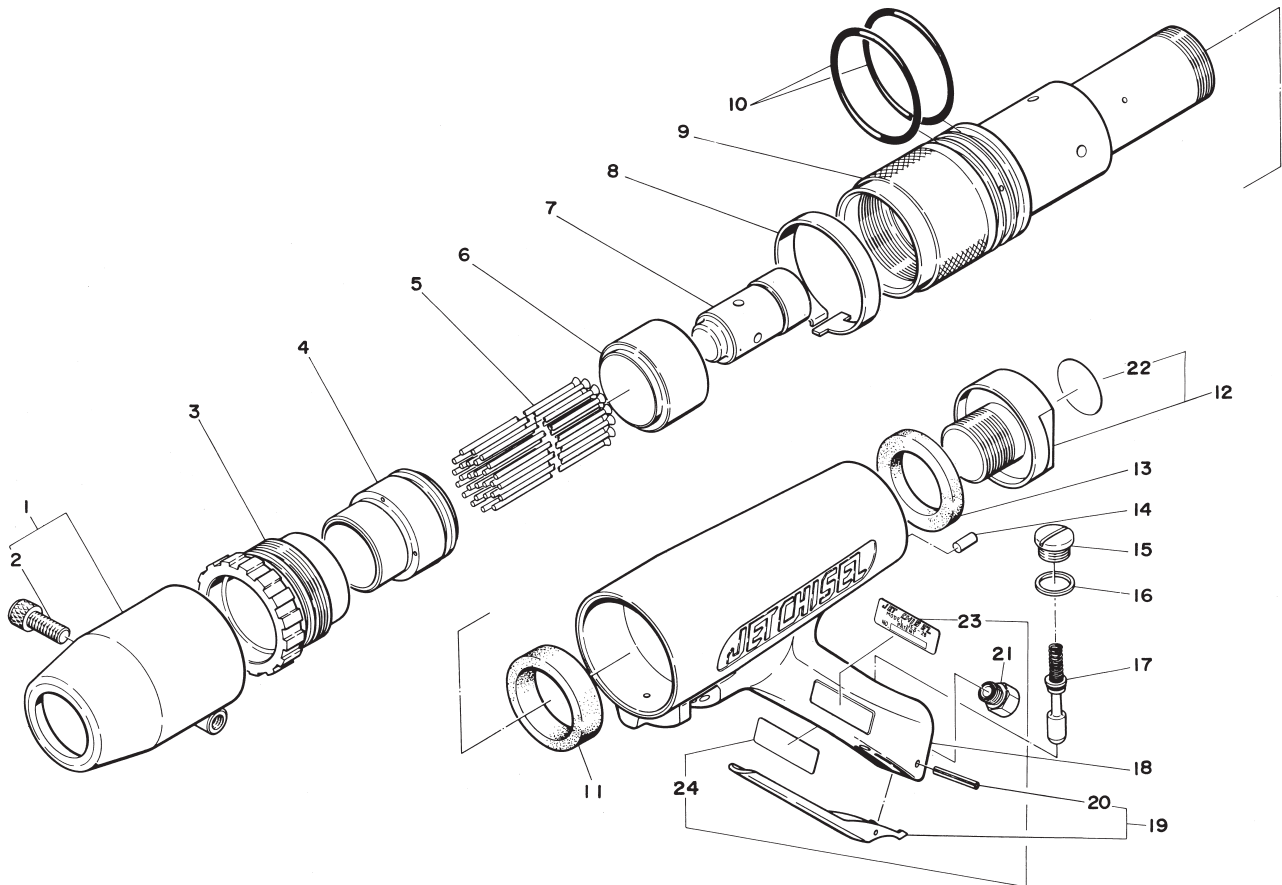
#### Accessories

No.	Part No.	Description	Qty	Price
	TP00170	Hex. Socket Screw Key 6	1	
	TQ02350	Bushing R3/8xNPT3/8	1	
	TQ03262	Hose Nipple R3/8x3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	

## 15. EXPLODED DIAGRAM : JEX-28

### WARNING

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Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TA93365	Round Needle Guide Ass'y	1set	
2	(TP00045)	Hex. Socket Head Cap Screw 8x25	1	
3	TP01464	Lock Ring	1	
4	TP01461	Needle Supporter O.D.3	1	
5	—	Needle O.D.3x180mm	28	
6	TP00399	Throttle Anvil	1	
7	TP00395	Piston	1	
8	TP01466	Lock Band	1	
9	TP01463	Cylinder	1	
10	TP11993	O-Ring AS568A-226	2	
11	TP01474	Front Washer	1	
12	TB08717	Rear Bolt Ass'y	1set	
22	(TQ12688)	Label Warning	1	
13	TP01475	Rear Washer	1	
14	TP01478	Cylinder Lock Pin	1	
15	TP00389	Valve Cap	1	
16	TP00388	Valve Packing	1	

No.	Part No.	Description	Qty	Price
17	TA90037	Throttle Valve Ass'y	1set	
18	TB08716	Housing Sub Ass'y	1set	
23	(TP01471)	Name Plate	1	
24	(TQ12611)	Label Warning CE Mark	1	
19	TB00427	Throttle Lever Ass'y	1set	
20	(TQ00563)	Spring Pin 3x20	1	
21	TQ02349	Bushing M16xRc3/8	1	

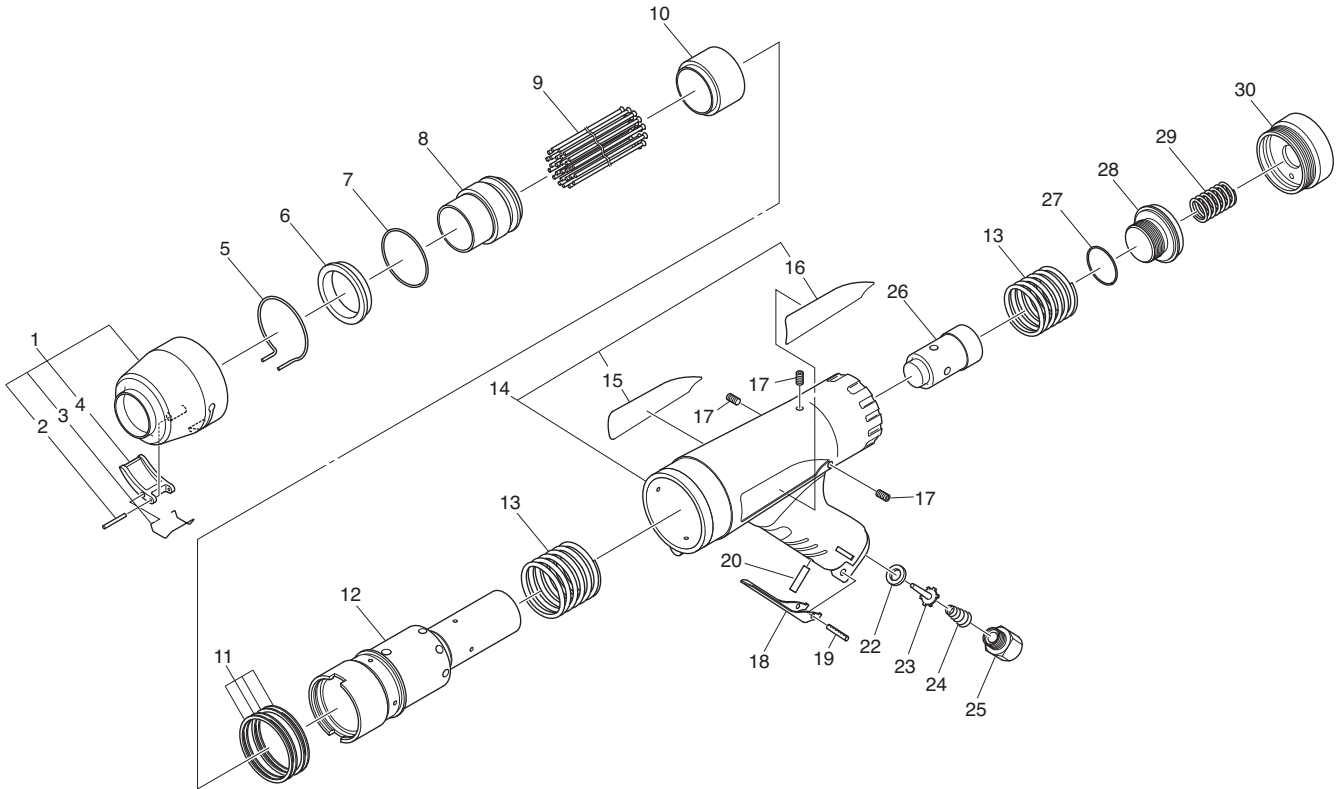
#### Accessories

No.	Part No.	Description	Qty	Price
	—	Needle O.D.4x180mm	14	
	TP01462	Needle Supporter O.D.4	1	
	TP00170	Hex. Socket Screw Key 6	1	
	TQ02350	Bushing R3/8xNPT3/8	1	
	TQ03262	Hose Nipple R3/8x3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	

## 16. EXPLODED DIAGRAM : JEX-2800A

### WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.  
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.  
Improper service and repair can cause accidents and service injuries.  
Never attempt to modify the Tool. Never attempt service or repair the Tool yourself.



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

No.	Part No.	Description	Qty	Price
1	TB05957	Needle Guide Ass'y	1set	
2	(TP13893)	Spring Pin 3x22	1	
3	(TQ10583)	Clamp Spring	1	
4	(TQ10555)	Clamp Lever	1	
5	TQ10246	Snap Ring	1	
6	TQ10247	Lock Ring	1	
7	TQ10562	O-Ring G-40	1	
8	TP01461	Needle Supporter O.D. 3	1	
9	TP00341	Needle O.D. 3x180mm	28	
10	TP00399	Throttle Anvil	1	
11	TQ10241	Back UP Ring	4	
12	TQ10240	Cylinder	1	
13	TQ10239	Spring 3.5x44x38	2	
14	TB08624	Housing Ass'y A	1set	
15	(TQ12783)	Label Warning	1	
16	(TQ12659)	Label Name	1	
17	(TP08684)	Hex.Socket Screw 4x8	3	
18	TP01557	Throttle Lever	1	
19	TP01802	Spring Pin 3x28	1	
20	TQ10450	Parallel Pin 5x35	1	

No.	Part No.	Description	Qty	Price
22	TQ04671	Seal Sheet 9x13.9x2	1	
23	TQ04664	Valve	1	
24	TQ04665	Conical Spring 0.8X6.4X11.6X21.8	1	
25	TQ10236	Bushing R3/8xM16	1	
26	TP00395	Piston	1	
27	CP21603	O-Ring JASO-1028	1	
28	TQ11251	Rear Bolt	1	
29	TQ10238	Spring 2.6x14.3x24	1	
30	TQ11250	Rear Cap	1	

#### Accessories

No.	Part No.	Description	Qty	Price
	—	Needle O.D.4x180mm	14	
	TP01462	Needle Supporter O.D.4	1	
	TQ02350	Bushing R3/8xNPT3/8	1	
	TQ03262	Hose Nipple R3/8x3/8	1	
	TQ12717	Instruction Manual	1	
	TQ12718	Declaration of Conformity	1	



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**EC DECLARATION OF CONFORMITY**

We hereby declare that the following our product conforms with the essential health and safety requirements of EEC Directives.

Product: PNEUMATIC NEEDLE SCALER  
Model: JET CHISEL : AJC-16, JC-16, JT-20, JEX-20, JEX-24 JEX-28, JEX-2800A

Serial No: In the case of 6 digits serial number.  
X X X X X X  
→ Consecutive numbers (00001~99999)  
→ Last digit (0-9) of year (A.D.)  
In the case of 7 digits serial number.  
X X X X X X X  
→ Consecutive numbers (00001~99999)  
→ Last two digits (00-99) of year (A.D.)

Manufacturer: NITTO KOHKI Co., Ltd.  
2-9-4, Nakaikegami, Ohta-ku, Tokyo, 146-8555, Japan

Authorised person to prepare the technical construction file(TCF) in the community:  
Masatoshi Ogue  
President  
NITTO KOHKI EUROPE Co., Ltd.  
Unit21, Empire Centre, Imperial Way, Watford Hertfordshire, WD24 4TS, UK  
Tel:(44)-01923-239668 Fax:(44)-01923-248815

Directive: 2006/42/EC Machinery Directive

The above product has been evaluated for conformity with above directives using the following European standards. The technical construction file (TCF) for this product is retained at the above manufacturer's location.

Machinery Directive: EN ISO 12100:2010, EN ISO 11148-4:2010, others  
Sound Pressure/Power Level: EN ISO 15744:2008, EN ISO 4871:1996  
Vibration Level: EN ISO 28927-9:2009

Signature: K. Kishi

Date/Place: Sep. 19, 2012. /Tokyo, Japan

Name: K. Kishi

Title: GENERAL MANAGER MACHINE TOOLS DIV.

NITTO KOHKI Co., Ltd.  
2-9-4, Nakaikegami, Ohta-ku, Tokyo, 146-8555, Japan

Being the responsible person appointed and employed the manufacturer.