

READ ALL INSTRUCTIONS BEFORE OPERATING THIS TOOL

JET CHISEL

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

PROFESSIONAL TOOL

JC-16 JC-16

Mödel Model **JEX-20 JEX-24**

Specifications



Model

JT-20

0	JEX-24	JEX-28
, 5.9	bar)	
	0.27 (9.5)	0.35(12.4)
	4,000	4,500
)	2.7 (6.0)	3.5 (7.7)
	99	101
	104	104
	8.4	11.2

Model		AJC-16	JC-16	JT-20	JEX-20	JEX-24	JEX-28
Rated Air Pressure			0.5	9MPa (6kgf/c	m², 85psig, 5.9	9bar)	
Air Consumption at Free Speed	m³/min (cfm)	0.07	0.15 (5.3)	0.2 (7.1)	0.2 (7.1)	0.27 (9.5)	0.35(12.4)
Stroke Speed	min ⁻¹	6,000	4,000	4,000	4,000	4,000	4,500
Mass (Weight)	kg (ibf)	0.98 (2.2)	1.4 (3.1)	2.4 (5.3)	2.4 (5.3)	2.7 (6.0)	3.5 (7.7)
Noise Level at User's Position	dB (A)	90	88	97	97	99	101
Noise Performance Level	dB (A)	96	92.5	100	100	104	104
Vibration Level	m/sec²	56.2	4.9	21.4	4.0	8.4	11.2
Thread Size of Air Inlet				Rc3/8	(PT3/8)		

These specifications and the profile may be changed for improvement without prior notice.



Manufactured by:

NITTO KOHKI CO., LTD.

9-4, Nakaikegami 2-chome, Ohta-ku,

Tokyo 146-8555, Japan Tel: (03) 3755-1111 Fax: (03) 3753-8791

SAVE THESE INSTRUCTIONS

Thank you for purchasing **Nitto Kohki product.**

Before using this tool, please read this manual carefully to ensure proper, efficient operation.

This instruction manual should be kept close at hand.

CONTENTS

IMPORTANT SAFETY INSTRUCTIONS FOR ALL AIR TOOLS IMPORTANT INSTRUCTIONS FOR AIR NEEDLE SCALER

	USAGE ······	
	AIR SUPPLY ······	
3.	REPLACING NEEDLES	3
4.	HOW IT WORKS (FOR YOUR UNDERSTANDING)	4
5.	OPTIONAL ACCESSORIES	4
6.	THREAD SIZE OF HOSE FITTING	4
7.	ORDERING SERVICE PARTS	4
8.	JET CHISEL AJC-16 ASSEMBLY AND PARTS LIST	5
9.	JET CHISEL JC-16 ASSEMBLY AND PARTS LIST	6
0.	JET CHISEL JT-20 ASSEMBLY AND PARTS LIST	7
1.	JET CHISEL JEX-20 ASSEMBLY AND PARTS LIST	8
2.	JET CHISEL JEX-24 ASSEMBLY AND PARTS LIST	S
3.	JET CHISEL JEX-28 ASSEMBLY AND PARTS LIST 1	C

PICTOGRAM



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



Before operating the tool-read and understand all instructions supplied. Keep for future reference.



Personal protective equipment as eye-, ear protection and protective gloves must always be used when operating the tool.

↑ WARNING

IMPORTANT SAFETY INSTRUCTIONS: FOR ALL AIR TOOLS

When using air tools, basic safety precautions should always be followed to reduce risk of personal injury, including the following.

Operator

Operators assigned to use the tools should be instructed in the safe use of the tool.

No person should use this tool without first having read and understood this instruction manual.

- (1) Dress properly. Do not wear loose clothing or ornaments. They can be caught in moving parts. Non-skid footwear is recommended. Wear protective hair covering to contain long hair.
- (2) Always wear eye protection. Everyday eyeglasses only have impact resistant lenses. They do **NOT** protect eyes. Also use face or dust mask, if operations create dust.
- (3) Always wear protective ear equipment.
- (4) Do not overreach. Keep proper footing and balance at all times.
- (5) Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- (6) Some tools generate substantial vibrations. If discomfort or pain is encountered during use, you should cease operations and check with your physician prior to further use.
- (7) Be sure to keep hands clear of moving parts.

Work-place

- (1) Keep work area clean. Cluttered work areas and benches invite accidents and injuries.
- (2) Consider work area environment. Do not expose tools to rain. Do not use tools in damp or wet locations. Keep work area well lit.
- (3) Do not operate near flammable liquids or in gaseous or explosive atmospheres.
- **(4) Keep children away.** Also all visitors should be kept away from work area. Do not let visitors contact the tool, compressor or connecting hoses.
- (5) Some tools generate high noise levels. Check to be sure that the use of this tool conforms to all local noise regulations.

Before Work

- (1) Be sure all external screws, nuts and bolts are tightly secured prior to each use.
- (2) Do not use damaged frayed or deteriorated hoses and fittings.
- (3) Remove adjusting keys and wrenches. Form habit of checking to see that adjusting keys and wrenches are removed from tool before turning it on.
- **(4) Use right tool.** Do not force a small tool or attachment to do the job of a heavy-duty tool. Do not use tool for a purpose not intended.
- (5) Do not force tool. It will do the job better and safer at the rate for which it was designed.
- (6) Secure work. Use clamps or a vise to hold work when practical. It is safer than using your hand and it frees both hands to operate tool.
- (7) Air pressure at the inlet must not exceed 0.59 MPa (6 kgf/cm², 85 psig, 5.9 bar).

Handling

- (1) Store idle tools. When not in use, tools should be stored in dry, and locked-up places out of reach of children.
- (2) Avoid unintentional starting. Do not carry air powered tool with finger on throttle. When carrying tool, be sure the connecting hose to the compressor is disconnected.
- (3) Reduce the risk of unintentional starting. Make sure throttle is in off position before connecting air hose to tool.
- **(4) Do not abuse hose.** Never carry tool with sir supply hose connected or yank on hose to disconnect.
- (5) Never leave tool running unattended. Always turn off the air supply and disconnect the air supply hose. Do not leave tool unattended until it comes to a complete stop.

Maintenance

- (1) Do not reconstruct or modify.
- (2) Check damaged parts. Before further use of the tool, an accessory or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended functions. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. An accessory or other part that is damaged or inoperable should be properly repaired or replaced.

- (3) Repairs by authorized personnel. Any repairs to the tool or installation of replacement parts should be performed only by the sales agent from whom you purchased the tool or the manufacturer. Use only genuine replacement parts. Failure to utilize the expertise of an authorized sales agent from whom you purchased the tool or the manufacturer, or failure to use genuine replacement parts, may result in an increased risk of injury to the user and may invalidate your warranty.
- (4) Use recommended accessories. Consult this manual or the sales agent from whom you purchased the tool or the manufacturer for recommended sccessories. The use of improper accessories may cause risk of injury to persons.
- (5) Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on the tool or before performing any maintenance on the tool.
- (6) Do not remove any labels placed on the tool. If the labels become damaged, or begin to peel away, contact the sales agent from whom you purchased the tool or the manufacturer for their immediate replacement.



IMPORTANT INSTRUCTIONS FOR NEEDLE SCALERS

- (1) The needles may break and fall off.
- (2) A needle supporter which suits the needles should be used.
- (3) Don't operate at no load. Because the life of the tool and needles is shortened.
- (4) The broken heads of needles must be removed from the cylinder. Otherwise continuous operation with them causes malfunction and shortened the life of Needle Supporter.
- (5) When using Needle Scaler hold needles firmly against work but do not press so hard that needles are prevented from hammering surface. An upright tool position is the best.

1 USAGE

This tool is for scaling workpieces using needles.

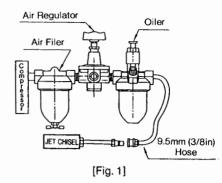
2 AIR SUPPLY

2-1 Air Pressure

Air pressure largely determines tool performance. This tool is designed to be operated at air pressure of 0.59 MPa (6 kgf/cm², 85 psig, 5.9 bar) maximum.

2-2 Air Line

Use a 9.5 mm (3/8") air hose between the compressor and the tool. Compressed air is cooled and its drain separated, as soon as the air leaves the compressor. The drain, however is condensed in the piping, and can enter the tool mechanism, and may cause trouble. So, install an air filter and an oiler between the compressor and the tool.



2-3 Lubrication

Install an oiler between the compressor and the tool. Use #10 machine oil. Neglecting the oil supply will cause damage. Use of thick oil will lead to poor performance. Always use #10 machine oil.

2-4 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 PT $3/8 \times 3/8$ included in the accessories, then the coupling be attached. It the coupling is directly fixed, it would be damaged by the vibration and the life would be shortened.

3 REPLACING NEEDLES

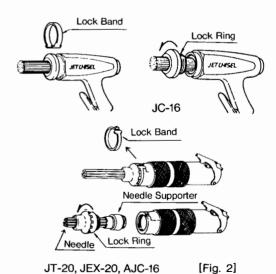
⚠ WARNING

Always turn off the air supply and disconnect the air supply hose.

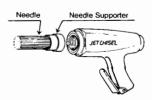
Read and thoroughly understand <u>IMPORTANT</u> <u>INSTRUCTIONS FOR NEEDLE SCALERS</u> before carrying out these operations.

3-1 JC-16, JT-20, JEX-20, AJC-16

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



(3) Take out the Needle Supporter by pulling out the needles.



[Fig. 3]

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

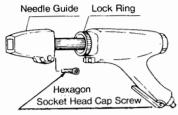
Cautions in replacing the needle of AJC-16

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 replaced or replenished.

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

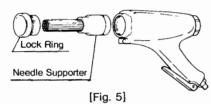
3-2 JEX-24

(1) Unfasten the Hex. Socket Head Bolt 8×35 using the Hex. Wrench Key 6 and pull out the Needle Guide.



[Fig. 4]

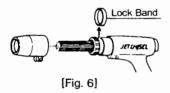
- (2) Loosen the Lock Ring and remove.
- (3) Take out the Needle Supporter by pulling out the needles.



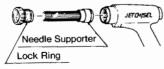
- (4) Extract the needles. Whenever the needles are damaged during operation, they must be replaced.
- (5) After replacing needles, assemble in the reverse manner of disassembly.

3-3 JEX-28

(1) Unfasten the Hex. Socket Head Bolt 8×24 of the Needle Guide with the Hex. Wrench Key 6 and pull out the Needle Guide.



- (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.

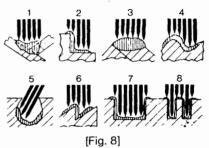


[Fig. 7]

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

4 HOW IT WORKS (FOR YOUR UNDERSTANDING)

The quick-reciprocating needles of the Needle Scaler adjust automatically to the surface contour during cleaning. Slight depression of the needles against the work surface is sufficient for maximum performance. An upright tool position is the best. The tool will clean uneven surfaces efficiently and get into grooves, corners and gaps, clean outside and inside surfaces and clean spaces inaccessible or too confined for other types of tools.



5 OPTIONAL ACCESSORIES

We can supply 2 and 3 mm diameter needles for JT-20, JEX-24 and AJC-16, 2, 3, and 4 mm diameter needles for JEX-28. Needles for JC-16 are 2 mm diameter only.

Change needles according to the type of your work.

Part No.	Part Name	Q'ty	Model
TA98780	Needles	100 pcs.	JC-16, AJC-16
TA98781	Needles	100 pcs.	
TA9A213	Needles	50 pcs.	JT-20
TA9A214	Needles ϕ 2×500mm	50 pcs.	JEX-20
TA98782	Needles	100 pcs.	JEX-20
TA9A216	Needles	50 pcs.	JEX-24 JEX-28
TA9A217	Needles	50 pcs.	JEA-20
TA9A218	Needles	50 pcs.	
TA98782	Needles	100 pcs.	AJC-16
TA98783	Needles	50 pcs.	
TA9A220	Needles	50 pcs.	JEX-28
TA9A221	Needles	50 pcs.]
TP00338	Needles Supporter	1	JT-20, JEX-20
TP02244	Needles Supporter	1	JEX-24
TP01499	Needles Supporter ϕ 2	1	JEX-28
TQ05210	Needles Supporter ϕ 2	1	AJC-16

6 THREAD SIZE OF HOSE FITTING

The product comes with a metal fitting with PT (metric) thread. Connect the Bushing PT thread X NPT thread in the vinyl bag containing standard accessories. If you would like to have American NPT thread instead.

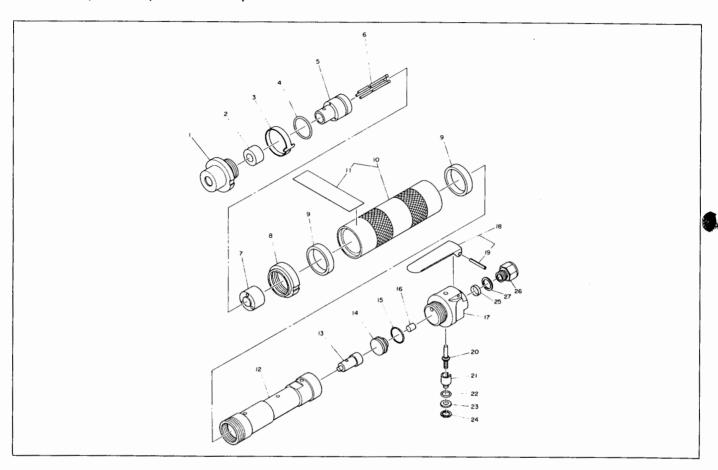
7 ORDERING SERVICE PARTS

In ordering parts and components, give each parts number(S), name and quantities.

8 JET CHISEL AJC-16 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts. Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No:	Part No.	Part Name	Q'ty	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 ϕ 3	1	
6		Needle ∮3×180mm	3	
7	TQ04562	Throttle Anvil	1	
8	TQ04557	Lock Nut	1	
9	TQ04556	Urethane Washer 30×34×6	2	
10	TB04325	Cover Ass'y	1 set	
11	(TQ05557)	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	1 set	

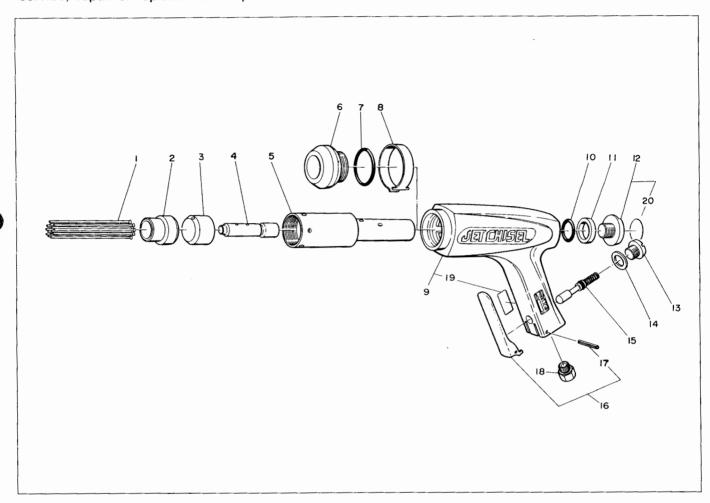
No.	Part No.	Part Name	"Q'ty	Price
19	(TP00460)	Spring Pin 3×22AW	1	
20	TA93070	Valve Stem Ass'y	1 set	
21	TP06325	Adjust Valve	1	
22	TP11997	O Ring KS-7	1	
23	TP06326	Spacer 6×12×1.2	1	
24	TP03695	Internal Retaining Ring C-12	1	
25	TQ04929	Filter	1	
26	TQ02349	Bushing M16×PT3/8	1	
27	TQ05564	Washer 16.2×21×1	1	

ICCESSONIES	No sella (0)/400		
	Needle ∮3×180mm	3	
TP16451	Instruction Manual	1	
TQ02350	Bushing PT3/8×NP3/8	1	
TQ03262	Hose nipple PT3/8×3/8		

9 JET CHISEL JC-16 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts. Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No.	Part No.	Part Name	Q'ty	Price
1		Needle	29	
2	TP00290	Needle Supporter	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	TB01536	Housing Sub Ass'y	1 set	
19	(TQ02207)	Warning Lavel CE Mark	1	
10	TP11986	O Ring KS-19	1	
11	TP03336	Rear Washer	1	
12	TA93271	Rear Bolt Ass'y	1 set	

No.	Part No.	Part Name	Q'ty	Price
20	(TP01480)	Name Plate	1	
13	TP00389	Valve Cap	1	
14	TP00388	Valve Packing	1	
15	TA90037	Throttle Valve Ass'y	1 set	
16	TB00426	Throttle Lever Ass'y	1 set	
17	(TQ00563)	Spring Pin 3×20	1	
18	TQ02349	Bushing M16×PT3/8	1	

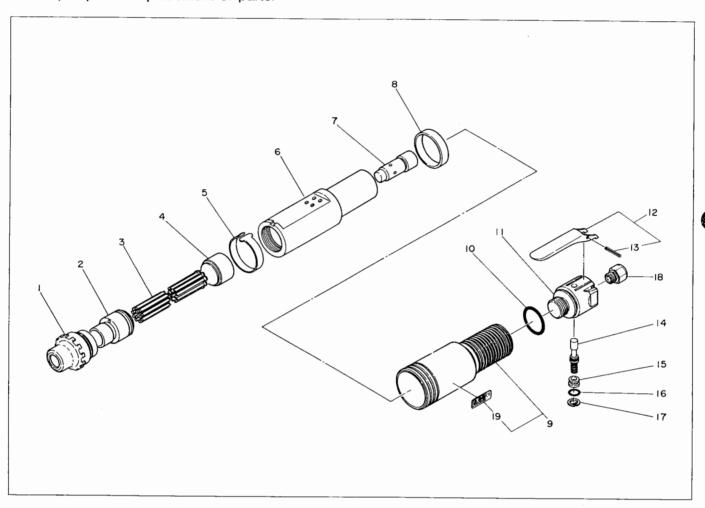
	Needle ¢2×150mm	29	
TP16451	Instruction Manual	1	
TQ02350	Bushing PT3/8×NPT3/8	1	
TQ03262	Hose Nipple PT3/8×3/8	1	

10 JET CHISEL JT-20 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts.

Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No.	Part No.	Part Name	- Q'ty	Price
1	TP14689	Lock Ring	1	
2	TP00337	Needle Supporter	1	
3		Needle ¢3×180 mm	12	
4	TP00336	Throttle Anvil	1	
5	TP14593	Lock Band	1	
6	TA99176	Cylinder Ass'y	1 set	
7	TP00332	Piston	1	
8	TP15020	Stopper	1	
9	TB01549	Cover Ass'y	1 set	
19	(TQ02207)	Warning Label CE Mark	1	
10	LP12795	O Ring G-30	1	
11	TP15230	Valve Body	1	

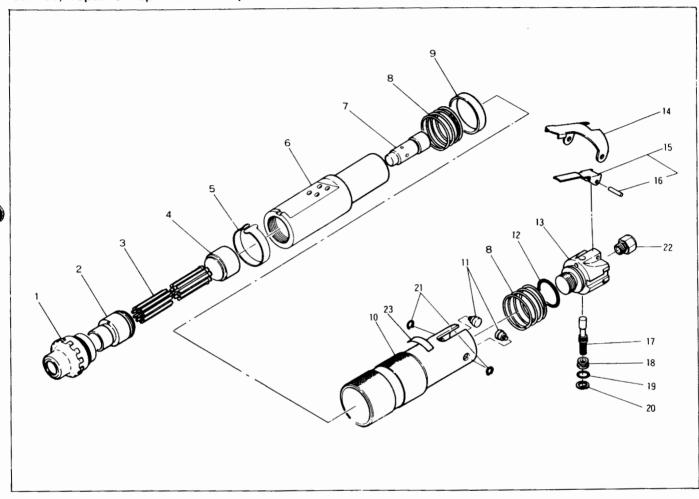
No.	Part No.	Part Name	Q'ty	Price
12	TA96324	Throttle Lever Ass'y	1 set	
13	(TP00327)	Spring Pin 3×25	1	
14	TA98983	Throttle Valve Ass'y	1 set	
15	TP14601	Valve Cap	1	
16	TP14604	O Ring S-10	1	
17	TP03695	Retaining Ring C-12	1	
18	TQ02349	Bushing M16×PT3/8	1	

	Needle ∮3×180mm	12	
TP16451	Instruction Manual	1	
 TQ02350	Bushing PT3/8×NPT3/8	1	
 TQ03262	Hose Nipple PT3/8×3/8	1	-

11 JET CHISEL JEX-20 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts. Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No.	Part No.	Part Name	Q'ty	Price
1	TP14689	Lock Ring	1	
2	TP00337	Needle Supporter	1	
3		Needle ∮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	TB03110	Cover Ass'y	1set	
23	(TQ02207)	Warning Label CE Mark	1	
11	TP14599	Lever Pin	2	
12	LP12795	O Ring	1	
13	TP15229	Valve Body	1	
14	TP14597	Throttle Lever	1	

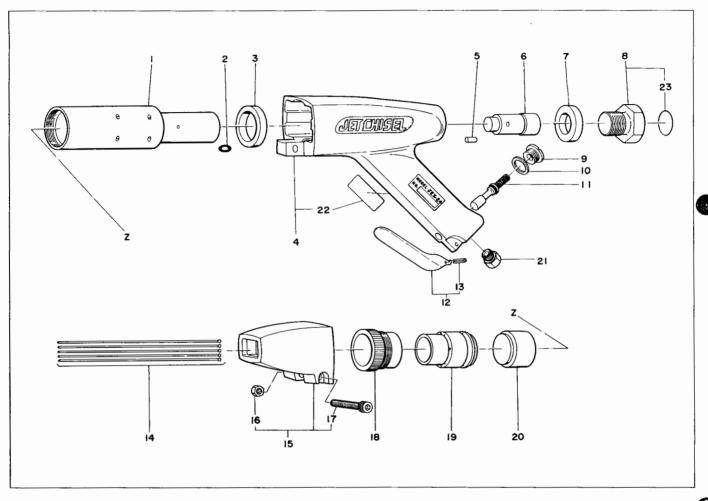
No.	Part No.	Part Name	Q'ty	Price
15	TA98982	Throttle Lever Ass'y	1set	
16	(TP01921)	Spring Pin ∮3×18	1	
17	TA98983	Throttle Valve Ass'y	1set	
18	TP14601	Valve Cap	1	
19	TP14604	O Ring	1	
20	TP03695	Internal Retaining Ring C-12	1	
21	TP02853	Retaining Ring E-4	2	
22	TQ02349	Bushing M16 × PT3/8	1	

	Needle ϕ 3 × 180mm	12	
TQ02350	Bushing PT3/8 × NPT3/8	1	
TQ03262	Hose Nipple PT3/8 × 3/8	1	
TP16451	Instruction Manual	1	

12 JET CHISEL JEX-24 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts. Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No.	Part No.	Part Name	Q'ty	Price
_ 1	TP02241	Cylinder	1	
2	TP11992	O Ring KS-9	1	
3	TP02250	Front Washer	1	
4	TB01601	Housing Sub Ass'y	1 set	
22	(TQ02207)	Warning Label CE Mark	1	
5	TP01478	Cylinder Lock Pin	1	
6	TP02242	Piston	1	
7	TP02249	Rear Washer	1	
8	TA93278	Rear Bolt Ass'y	1	
23	(TP01480)	Name Plate	1	
9	TP00389	Valve Cap	1	
10	TP00388	Valve Packing	1	
11	TA90037	Throttle Valve Ass'y	1 set	
12	TB00427	Throttle Lever Ass'y	1 set	
13	(TQ00563)	Spring Pin 3×20	1	

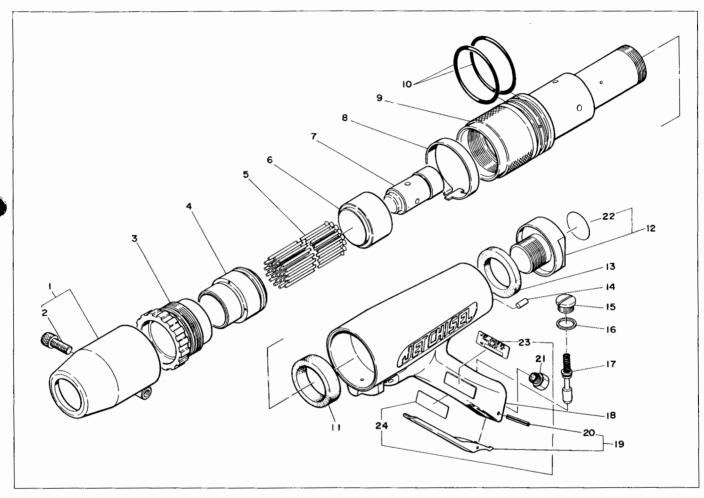
No.	Part No.	Part Name	Q'ty
14		Needle ¢3×180 mm	23
15	TA93189	Needle Guide Ass'y	1 set
16	(TQ01484)	Small Hex. Nut M8	1
17	(TP16284)	Hex. Socket Head Bolt 8×45	1
18	TP02246	Lock Ring	1
19	TP02245	Needle Supporter ϕ 3	1
20	TP02243	Throttle Anvil	1
21	TQ02349	Bushing M16×PT3/8	1

 TP00170	Hex. Wrench Key 6	1	
 TP16451	Instruction Manual	1	
TQ02350	Bushing PT3/8×NPT3/8	1	
TQ03262	Hose Nipple PT3/8×3/8	1	

13 JET CHISEL JEX-28 ASSEMBLY AND PARTS LIST

⚠ CAUTION

The illustration is for information only. Users should never disassemble parts. Contact the sales agent from whom you purchased the tool or the manufacturer should the tool need service, repair or replacement of parts.



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

No.	Part No.	Part Name	Q'ty	Price
1	TA93365	Round Needle Guide Ass'y	1 set	
2	(TP00045)	Hex. Socket Head Bolt 8×25	1	
3	TP01464	Lock Ring	1	
4	TP01461	Needle Supporter ø3	1	
5		Needle ∮3×180 mm	28	
6	TP00399	Throttle Anvil	1	
7	TP00395	Piston	1	
8	TP01466	Lock Band	1	
9	TP01463	Cylinder	1	
10	TP11993	O Ring	2	
11	TP01474	Front Washer	1	
12	TA90452	Rear Bolt Ass'y	1 set	
22	(TP01480)	Name Plate	1	
13	TP01475	Rear Washer	1	
14	TP01478	Cylinder Lock Pin	1	

No.	Part No.	Part Name	Q'ty Price
15	TP00389	Valve Cap	1
16	TP00388	Valve Packing	1
17	TA90037	Throttle Valve Ass'y	1 set
18	TB01595	Housing Sub Ass'y	1 set
23	(TP01471)	Name Plate JEX-28	1
24	(TQ02207)	Warning Label CE Mark	1
19	TB00427	Throttle Lever Ass'y	1 set
20	(TQ00563)	Spring Pin 3×20	1
21	TQ02349	Bushing M16×PT3/8	1

 TP00170	Hex. Wrench Key 6	1	
	Needle	14	
TP01462	Needle Supporter $\phi 4$	1	
TP16451	Instruction Manual	1	
TQ02350	Bushing PT3/8×NPT3/8	1	
TQ03262	Hose Nipple PT3/8×3/8	1	

INSTRUCTION MANUAL

AIR MULTIPLE NEEDLE SCALER
JET CHISEL Model AJC-16, JC-16, JT-20, JEX-20, JEX-24, JEX-28
READ ALL INSTRUCTIONS BEFORE OPERATING THIS TOOL