

## INSTRUCTION MANUAL

## W400 WB SPRAY GUN



## IMPORTANT

PL Before commencement of work thoroughly read this manual and its instructions, including those regarding safety of work, and strictly observe them.

The spray gun should be operated by a trained worker. Any use and/or servicing not in compliance with this manual will INVALIDATE THE WARRANTY. Read these instructions before using the spray gun.

## SPECIFICATIONS

Max. working pressure: 6.8 bar (98 PSI)	Paint tank terminal: M16 x 1.5mm	Emitted noise level (LAeqT) 74.5 dB (A)
Temperature range: 5~40 °C	Air inlet terminal: G 1/4"	

Model	Nozzle diameter mm (in)	Air pressure bar (PSI)	Lacquer output ml/min	Air consumption l/min (cfm)	Jet width mm (in)	Head	Weight g (lbs)
<b>High T.E.C. W400 WB</b>							
W400WB-101G	1.0 (0.039)	1.8 (26)	90	230 (8.1)	230 (9.1)	WB1	380 (0.84)
W400WB-121G	1.2 (0.047)		120		260 (10.2)		
W400WB-141G	1.4 (0.055)		160		290 (11.4)		
W400WB-132G	1.3 (0.051)		140	390 (13.7)	300 (11.8)	WB2	
W400WB-162G	1.6 (0.060)		210	390 (13.7)	300 (11.8)	WB2	

Nozzle		Needle
Diameter	Type	Type
mm		
1.0 (0.039)	200WB/10	40012
1.2 (0.047)	400WB/12	40012
1.4 (0.055)	400WB/14	20015

## ATTENTION

Spare parts list is provided on page 3.

Manufactured by:  
**ANEST IWATA Corporation**  
 1-9-14, Ebisuminami, Shibuya-ku, Tokyo, Japan

## **SAFETY**

### **FIRE OR EXPLOSION HAZARD**

1. Lacquering materials applied with the device may be flammable or explosive:
  - Use the spray gun in well-ventilated lacquering cabins.
  - Avoid ignition sources, including open fire, electric arc, etc.
2. Never use chlorinated hydrocarbons (e.g. trichloroethylene, ethyl chloride, etc.) as solvents, because they may react chemically with aluminium and zinc-coated elements and bring about explosions. Make sure that the solvents being used are safe in contact with aluminium and zinc. In case of doubts contact your solvent supplier.
3. In order to avoid static discharges - earth the painted object and spraying equipment.

### **HAZARDS DUE TO IMPROPER OPERATION**

1. NEVER turn the spray gun outlet towards the human body.
2. NEVER exceed the maximum working pressure.
3. Cut off the compressed air and lacquering material supply hoses before performing any servicing and maintenance operations.

### **HAZARDS INVOLVED IN SPRAY GUN OPERATION**

1. Vapours generated during the operation of the spray gun may cause intoxication and health problems.
  - Use the spray gun in well-ventilated rooms.
  - Always wear safety goggles, gloves and face-masks for protection against harmful substances.
2. The noise level reported in the specifications has been measured at a distance of 1 metre from the head, and at a height of 1.6 m.
  - Apply personal protective equipment for your hearing, and breaks in work (working time shall not exceed 4 hours).

### **OTHER HAZARDS**

1. DO NOT modify the spray gun in any way.
2. NEVER perform any work within the range of operation of robots, conveyors, etc., unless these machines are disabled.
3. NEVER spray any foodstuffs and/or chemical compounds.

## **PREPARATION**

### **IMPORTANT**

- This spray gun should be operated by a trained worker.
  - Make sure that the spray gun has not been damaged in transport.
  - Supplied air has to be dry and pure.
1. Connect compressed air hose - terminal no. 5-1.
  2. Fasten paint tank - terminal no. 5-2.
  3. Wash the spray gun with a proper solvent.
  4. Fill the tank with lacquering material, and perform a test spray in order to adjust the spray gun.

## PREPARATION

The recommended supply air pressure ranges from 1.7 to 2.0 bar in order to obtain best flow efficiency.

Keep the distance between the spray gun and painted surface ranging from 100 to 200 mm.

Maintain liquid outflow at a minimum level within a range that which will allow uninterrupted work.

This will guarantee a higher quality of applied coat owing to better material atomisation. The spray gun should always be held perpendicular to the painted surface and moved along a horizontal straight line.

The viscosity of the material being applied should range from 15 to 23 sec., depending on its characteristics and painting conditions. (Recommended Ford cup no. 4.)

## MAINTENANCE

### ATTENTION

CUT OFF THE COMPRESSED AIR SUPPLY HOSE AND EMPTY THE TANK CONTAINING THE LACQUERING MATERIAL BEFORE COMMENCEMENT OF ANY SERVICING AND MAINTENANCE OPERATIONS. PROCEED WITH CARE DURING THE SPRAY GUN DISASSEMBLY SO AS NOT TO GET HURT IN CONTACT WITH SHARP ELEMENTS. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING THE SPRAY GUN DISASSEMBLY.

1) Remove paint residues and wash conduits and the nozzle by spraying a small amount of solvent through the spray gun.

Careless washing may result in disturbances in the jet shape.

In case of binary materials - wash the tool immediately after use.

2) Clean other spray gun elements using the brush provided.

3) Carefully wash paint flow conduits before the spray gun disassembly.

4) Disassemble the nozzle after having removed the needle or with the release trigger pressed - in order to protect the nozzle from damage.

5) Assemble the needle unit by screwing in the needle seal manually, and then carefully tighten it up with a spanner/key. Adjust the seal pressure by releasing the trigger and checking if the needle returns to its "closed" position quick enough and all the way.

6) Turn the jet adjustment knob anticlockwise, until it reaches its full opening position, and then tighten up the pilot sleeve in the spray gun body.

### ATTENTION

- Use only original ANEST IWATA spare parts.
- Never immerse the whole spray gun in a solvent.
- Protect head holes, nozzle and needle against damage.

## SPARE PARTS

DESCRIPTION	NUMBER
HEAD	1
NOZZLE AND NEEDLE	2 •
NOZZLE	2-1 •
NEEDLE	2-2 •
NEEDLE SEAL	3
NEEDLE SEAL PRESSING CLAMP	4
BODY	5
AIR INLET TERMINAL	5-1
PAINT TANK TERMINAL	5-2
JET WIDTH REGULATOR	6
AIR VALVE SEAT	7
SEAT SEAL	7-1 •
AIR VALVE	8 •
VALVE SPRING	9
PILOT AND SEALING SLEEVE	10

DESCRIPTION	NUMBER
NEEDLE SPRING	11
NEEDLE KNOB	12
AIR VALVE PUSHER	13 •
AIR FLOW CONTROL KNOB	14
RELEASE TRIGGER PIN	15
RELEASE TRIGGER	16
BLOCKING RING	17
FILTER	18
BRUSH	19
INSTRUCTION MANUAL	20

• Marked parts require periodical replacement when they wear out

### ATTENTION:

When ordering spare parts, specify the spray gun model, name and number of part, head number, and numbers of nozzle and needle.

## DISTURBANCES DURING OPERATION

Fault	Reason	Remedy
Pulsation	1. Air penetrates between the nozzle and its tapered seat in the body. 2. Air is drawn in through the head seal.	1. Unscrew the nozzle in order to clean the seat – replace if damaged. 2. Seal the head.
Crescent	1. Lacquer residues inside the head, partially clogged the head holes. Different air pressure in head holes.	1. Remove soiling from head holes. Do not use metal objects to do this.
Skew	1. Lacquer residues on the nozzle hole edges, or damaged central hole in the head. 2. Loose nozzle.	1. Remove soiling from the nozzle or replace it if damaged. 2. Unscrew the nozzle and clean its seat.
Splitting	1. Too low lacquer viscosity. 2. Too high liquid outflow.	1. Add more lacquer in order to increase viscosity. 2. Adjustment with jet or needle control knob.
Separate stains	1. Too low lacquer viscosity. 2. Too high liquid outflow.	1. Reduce viscosity. 2. Increase liquid outflow.
Spitting	1. Nozzle and needle are incorrectly mounted. 2. Too short stroke of release trigger opening air flow. 3. Lacquer residues inside the head.	1. Clean or replace nozzle and needle. 2. Replace nozzle and needle unit. 3. Clean the head.

## PROBLEMS AND TROUBLESHOOTING

Problem	Location	Parts to check	Reason	Solution			
				Press down	Adjust	Clean	Replace
Air leak from head hole	Air valve	Air valve	Dirty or soiled seat			X	X
		Air valve seat	Soiled or damaged			X	X
		Valve sealing	Worn out valve spring				X
		Valve sealing	Damaged or aged				X
Lacquer leak	Spray gun nozzle hole	Nozzle - needle unit	Soiled, damaged, seat wear			X	X
			Loose needle knob		X		
			Worn out needle spring				X
		Nozzle - body	Insufficiently tightened	X			
			Soiled or damaged seat			X	X
		Needle seal	Needle does not return to closed position - seal too tight		X		X
	Needle does not return to closed position - lacquer residues on the needle			X	X		
	Needle seal	Needle seal needle unit	Wear	X			X
Seal		Insufficient pressing down	X				
Lacquer does not flow out	Nozzle hole	Needle knob	Insufficient opening		X		
		Nozzle hole	Clogged			X	
		Lacquer filter	Clogged			X	X



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