

MULTISPRAY

GUNS SERIES



USE AND
MAINTENANCE
INSTRUCTION
MANUAL



MSGS-200 EVO

WITH SHORT & LONG FILTER

EN - IT - FR - DE - ES - PT - SE - PL - RU - ZH - KO - JA



MSG-200
evo

MULTISPRAY
GUNSERIES



VERSIONS

MSG-200 EVO 120 SN MSG-200 EVO 120 SJ MSG-200 EVO 250 SN MSG-200 EVO 250 SJ
MSG-200 EVO 120 LN MSG-200 EVO 120 LJ MSG-200 EVO 250 LN MSG-200 EVO 250 LJ

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Dear Customer,

We thank you for the preference you gave us and we are glad to count you among our customers. We hope the use of this equipment will satisfy you and your staff.

The ANEST IWATA Multi Spray gun MSGS-200 EVO has been designed for the application of high-density materials, paints, lacquers and others, that are fed by medium and high pressure in combination with air-assisted atomization. This system blends all the advantages of Airless technology (such as speed and low dispersion) with those of the conventional ones (excellent finish), resulting in a product with high transfer efficiency and high quality of finish results.

1. IMPORTANT INFORMATIONS

IMPORTANT	
	This manual is an integral part of Multi Spray Gun and must to be read carefully before starting ANY ACTIVITY involving the use, adjustment and maintenance of the equipment, including its handling. This manual must be stored in a safe place for any future reference. Be sure to observe warnings and cautions in this instruction manual. If not, it can cause paint ejection and serious bodily injury by drawing organic solvent.
COMPLIANCE TO ATEX DIRECTIVE	
ANEST IWATA Multi Spray Guns comply with 2014/34/EU ATEX Directive relating to equipment and protective systems intended for use in explosive potentially atmospheres.	
COMPLETE COMPLIANCE MARKING:	UK CA CE Ex II 2 G Ex h IIB T6 Gb X +5°C ≤ Ta ≤ + 40°C
ABBREVIATE MARKING ON THE SPRAY GUN:	UK CA CE Ex II 2 G Ex h X

ALWAYS OBSERVE WARNINGS AND CAUTIONS IN THIS MANUAL

WARNING	HAZARD LEVEL	CONSEQUENCE
WARNING	POTENTIALLY HAZARDOUS SITUATION	DEATH OR SERIOUS INJURY
CAUTION		PROPERTY DAMAGE

2. SAFETY WARNING

WARNING	FIRE AND EXPLOSION HAZARDS
	SPARKS AND OPEN FLAMES ARE STRICTLY PROHIBITED Paints can be highly flammable and can cause fire. Avoid any ignition sources such as smoking, open flames, electrical goods, etc.
	SECURELY GROUND MULTI SPRAY GUN BY USING A CONDUCTIVE HOSE. ELECTRICAL RESISTANCE: <1MΩ. Check this value periodically. Securely ground pump, Multi Spray gun, workpiece and containers containing paint or solvent. Insufficient grounding can cause fire and explosion due to static electric sparking.
	NEVER USE THE FOLLOWING HALOGENATED HYDROCARBON SOLVENTS which can cause cracks or dissolution on gun body (aluminium) by chemical reaction. UNSUITABLE SOLVENTS: methyl chloride, dichloromethane, 1,2-dichloroethane, carbon tetrachloride, trichloroethylene, 1,1,1-trichloroethane BE SURE THAT ALL FLUIDS AND SOLVENTS ARE COMPATIBLE WITH GUN PARTS. We can supply a list of s used to manufacture the product.
WARNING	IMPROPER USE OF THE EQUIPMENT
	NEVER POINT MULTI SPRAY GUN TOWARDS PEOPLE OR ANIMALS. NEVER PULL TRIGGER OF GUN WHEN HUMAN BODY OR FINGERS COME NEAR TIP OF NOZZLE TIP. If done, it can cause inflammation of eyes and skin or bodily injury. If you feel any abnormality during operation, consult a medical doctor immediately.

	WARNING	IMPROPER USE OF THE EQUIPMENT
		NEVER EXCEED MAXIMUM OPERATING PRESSURE AND MAXIMUM OPERATING TEMPERATURE. Use at more than max. operating pressure can cause explosion of Multi Spray gun resulting in great danger.
		BE SURE TO RELEASE AIR AND FLUID PRESSURE BEFORE CLEANING, DISASSEMBLING OR SERVICING. If not, remaining pressure can cause bodily injury due to improper operation or scattering cleaning liquid.
	WARNING	PROTECTION OF HUMAN BODY
		USE IN A WELL-VENTILATED SITE BY USING A SPRAY BOOTH. If not, poor ventilation can cause organic solvent poisoning and catch fire. If you feel any abnormality during operation, consult a medical doctor immediately.
		ALWAYS WEAR PROTECTIVE GEAR (safety glasses, mask, gloves.) If not, cleaning liquid, etc., can cause inflammation of eyes and skin. If you feel something wrong with eyes or skin, immediately see a doctor.
The noise level of ANEST IWATA Spray Gun doesn't exceed the 85 dB (A) A-weighted sound pressure value about the risk of daily exposure to noise. THE USE OF INDIVIDUAL HEARING PROTECTION IS ALWAYS RECOMMENDED, because the terms of use and the influence of other noises in the job area, could increase the average value allowed.		
BE SURE TO STOP PUMP, REDUCE AIR AND FLUID PRESSURE DOWN TO "0 bar" AND SECURELY APPLY SAFETY LOCK OF MULTI SPRAY GUN BEFORE FIT OR REMOVE NOZZLE TIP. Emission of paint or solvent during operation can cause great danger.		
	WARNING	For emergency stop, when the distance between the gun and the pump unit is fairly wide, it is recommended to install a ball valve to close the delivery point at gun inlet.
		NEVER TRY TO STOP LEAKS BY HAND, WHEN PAINT LEAKS. In case of leaks, stop pump immediately and reduce paint pressure down to 0 bar. High pressure paint emission, can cause severe injury to the body resulting in a great danger for health. If you feel any abnormality or receive any injury, consult a medical doctor immediately.
		Pulling trigger many times during operation, may cause carpal tunnel syndrome. ALWAYS REST, IN CASE OF TIREDNESS.

	WARNING	OTHER PRECAUTIONS
		NEVER ALTER THIS MULTI SPRAY GUN. If done, it can cause insufficient performance and failure or in extreme cases, explosions.
		DO NOT ENTER WORKING AREAS WHERE ROBOTS, RECIPROCATORS, ETC. ARE USED, UNTIL THEY HAVE BEEN TURNED OFF. Otherwise they could can cause injury.
		NEVER USE THIS GUN TO SPRAY FOODS OR CHEMICALS. Otherwise foreign substance, could cause corrosion of fluid passages which could adversely affect health.
		SECURELY CONNECT FLUID HOSE. If hose is disconnected during operation, hazardous hose movement and paint ejection will cause severe bodily injury.
		IF SOMETHING GOES WRONG, IMMEDIATELY STOP OPERATION AND FIND THE CAUSE. Do not use again the spray gun, until you have solved the problem.
		NEVER USE SPARE PARTS THAT ARE NOT ANEST IWATA ORIGINALS.

	WARNING	BURST OF FLUID HOSE
		NEVER USE CRACKED, DAMAGED, BENT OR CRUSHED FLUID HOSE. High pressure paint emitted from small hole can pierce an iron plate and cause great danger.
		NEVER BEND FLUID HOSE WITH A RADIUS OF LESS THAN PERMITTED BEND RADIUS. Contact us, or the shop who sold the hose to you, about permitted bend radius. Never put heavy things on it in order not to damage the hose. If done, hose can explode causing great danger.

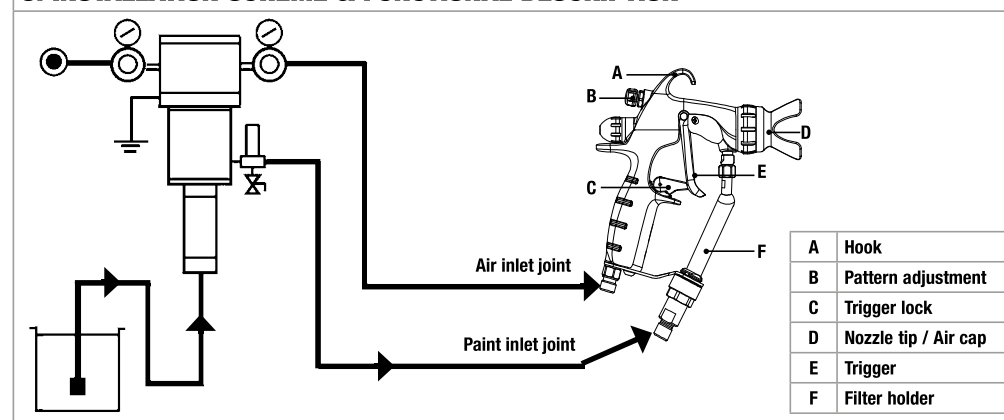
MODELS		3. BOX CONTENTS		
LONG FILTER		When receiving the Multi Spray Gun, make sure that it has not been damaged during transport or storage and also check that all the following items are inside the box.		
SHORT FILTER				

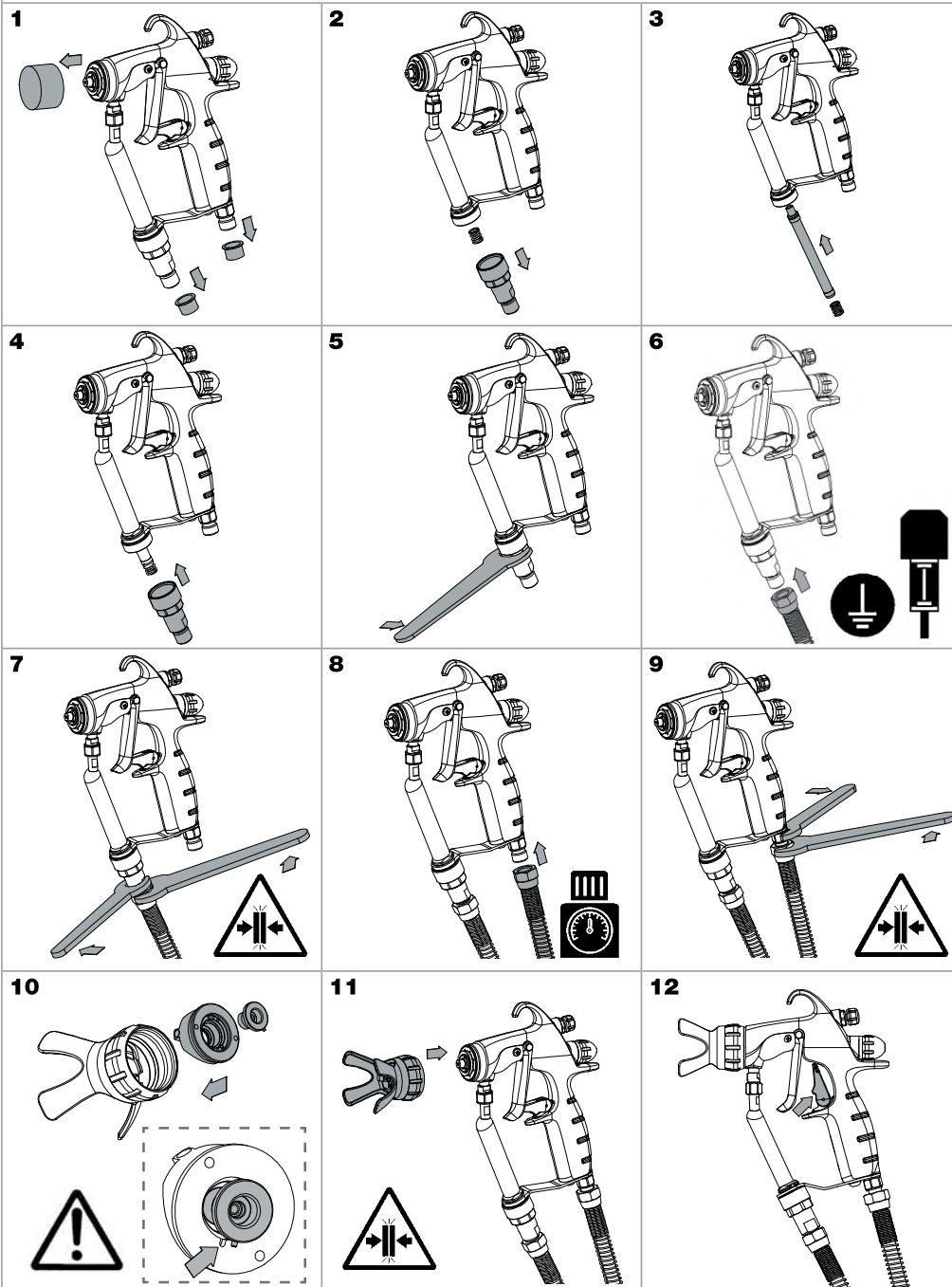
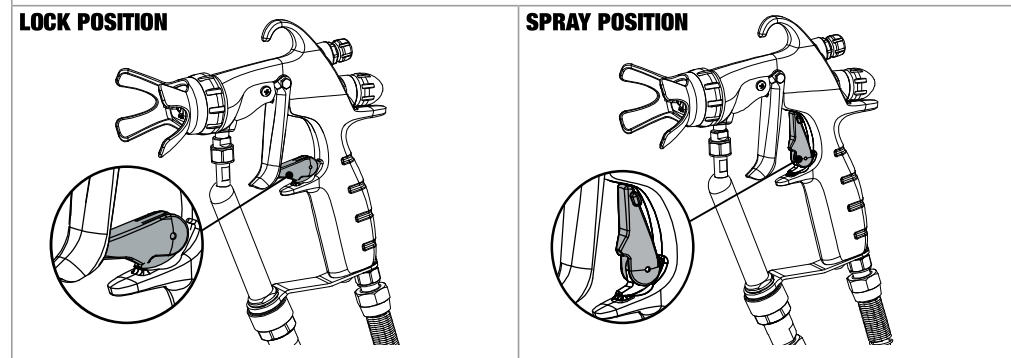
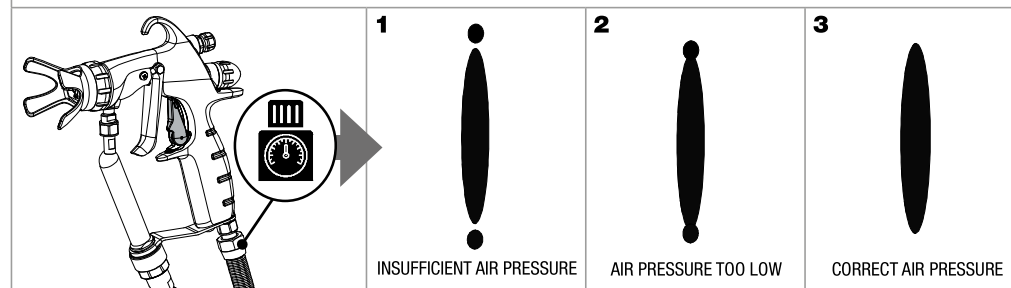
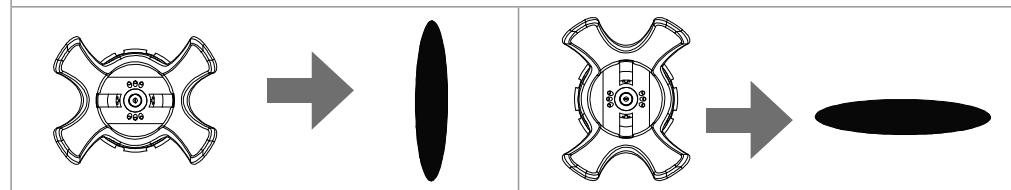
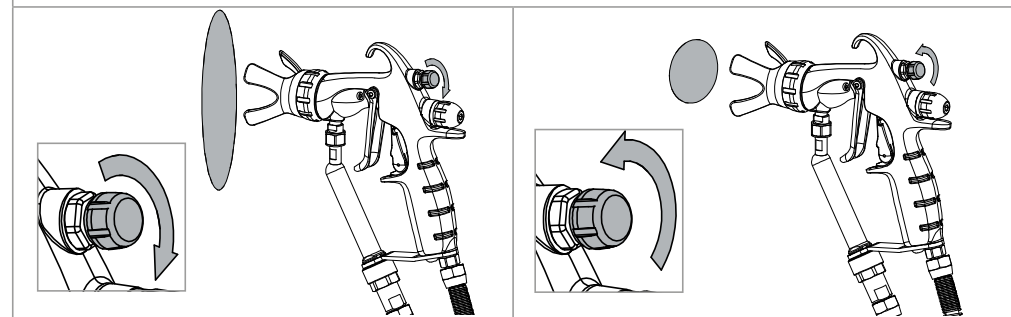
4. IMPORTANT SPECIFICATIONS

Models		Type	Max. fluid pressure	Max. air pressure	Air connection	Fluid connection	Mass (g)	Noise Level (LAeqT)	Max. Temperature range
MSGS-200 EVO	- 120 SN	Short filter	120 bar	7.0 bar	G1/4"	NPSM 1/4"	545	82.67 Lpa(dB)	5-40 C°
	- 120 LN	Long filter					587		
	- 120 SJ	Short filter				JIC 1/2"	545		
	- 120 LJ	Long filter					587		
	- 250 SN	Short filter	250 bar	7.0 bar	G1/4"	NPSM 1/4"	545	82.67 Lpa(dB)	5-40 C°
	- 250 LN	Long filter					587		
	- 250 SJ	Short filter				JIC 1/2"	545		
	- 250 LJ	Long filter					587		

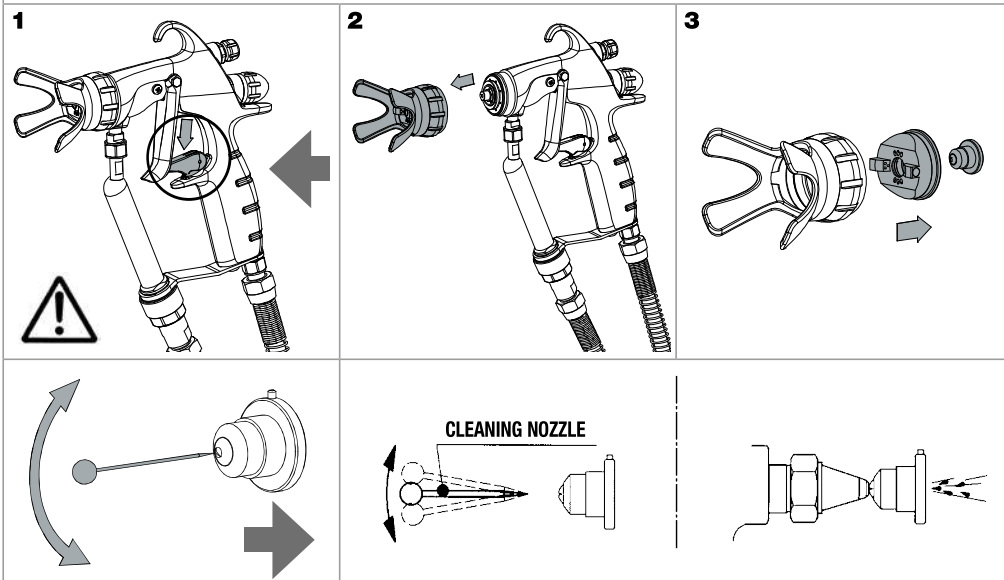
AI-MVLP: For HVLP compliance, the maximum air inlet pressure must not exceed 14.5 psi (1bar) to maintain 10 psi (0.68 bar) or less, in the air cap. (Tested with the fan control fully closed and the pressure gauge for air inlet, fitted to the gun handle).

5. INSTALLATION SCHEME & FUNCTIONAL DESCRIPTION



6. SETUP OF SPRAY GUN**7. TRIGGER LOCK****8. FLUID PATTERN SHAPE SETUP****9. AIR CAP POSITIONING FOR SPRAY DIRECTION****10. PATTERN ADJUSTMENT**

11. NOZZLE TIP CLEANING



12. CLEANING AND MAINTENANCE OPERATIONS

WARNING



FULLY CLEAN AFTER EACH USE TO ENSURE LONGER LIFETIME OF THE SPRAY GUN AND GOOD PERFORMANCE AT NEXT USE.

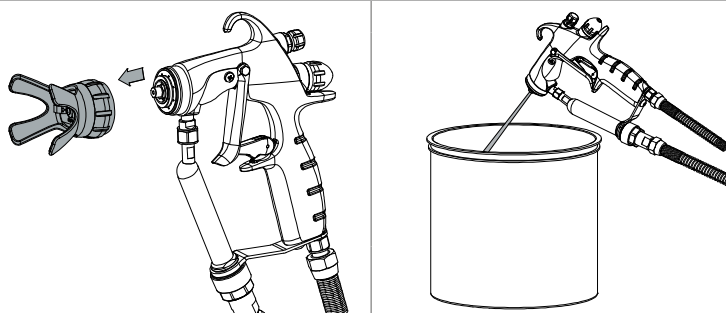


DURING CLEANING, ALWAYS WEAR PROTECTIVE CLOTHING SUCH AS GLASSES, MASK OR GLOVES TO AVOID SERIOUS INJURY CAUSED BY PAINT OR SOLVENT WHICH COULD COME INTO CONTACT WITH EYES OR BE INHALED.

WARNING



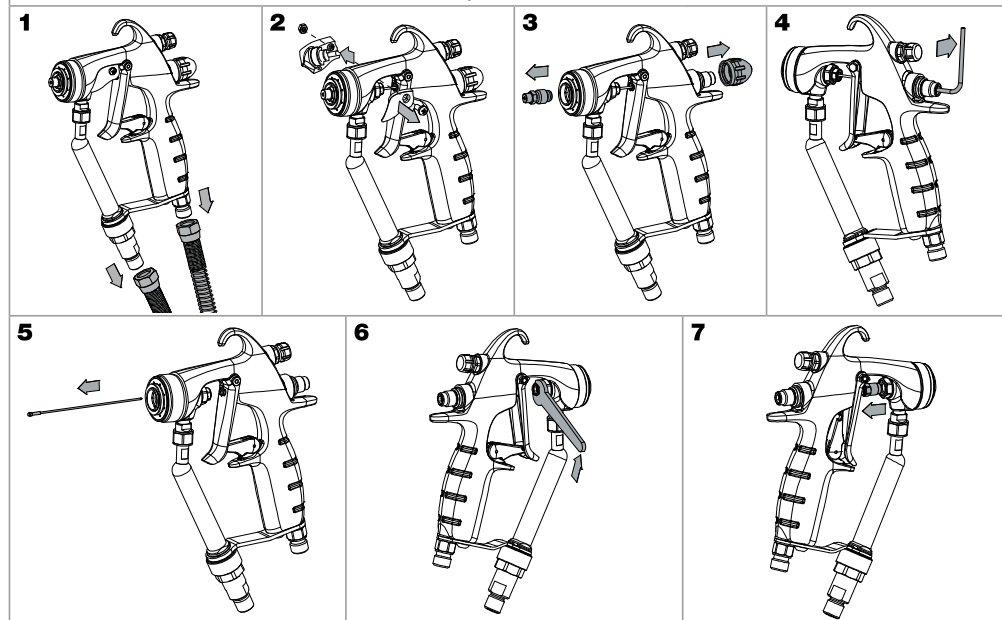
AIR PRESSURE : 0 BAR
FLUID PRESSURE: MINIMIZED



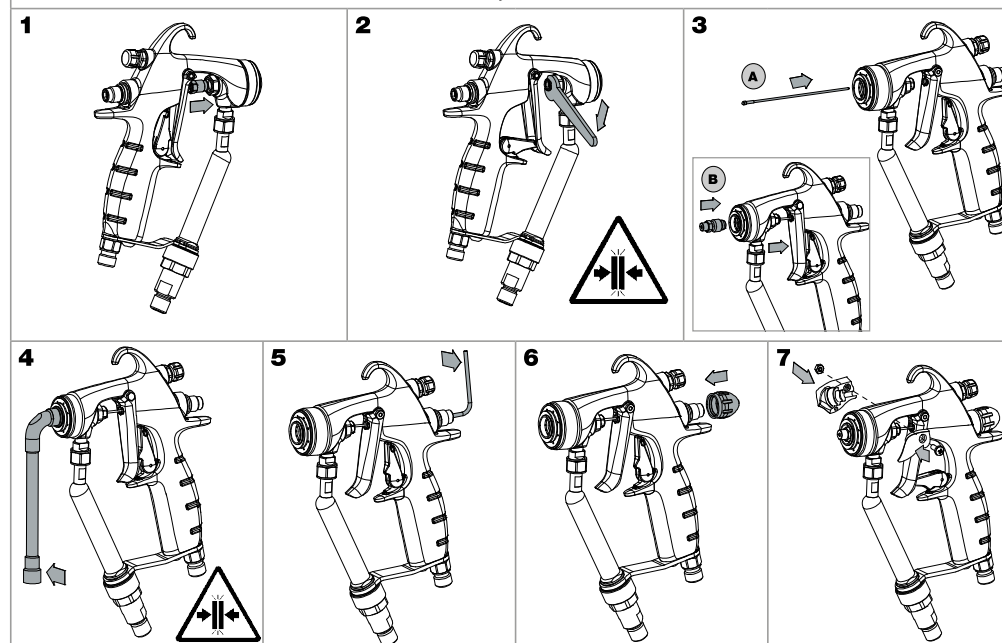
CAUTION

BEFORE DISASSEMBLING AND MAINTENANCE OPERATIONS, BE SURE ALWAYS TO STOP PUMP, REDUCE AIR AND FLUID PRESSURE DOWN TO "0 bar" AND APPLY SAFETY LOCK TO MULTI SPRAY GUN.

12.1 DISASSEMBLING OF FLUID NOZZLE, NEEDLE & NEEDLE PACKING

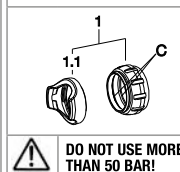


12.2 REASSEMBLING OF NEEDLE PACKING, NEEDLE & FLUID NOZZLE

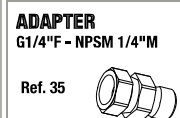


13. SPARE PARTS LIST

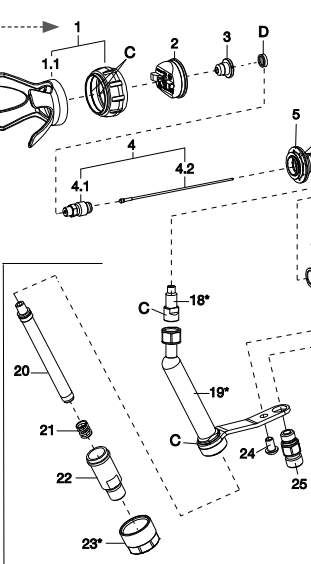
SHORT TIP GUARD



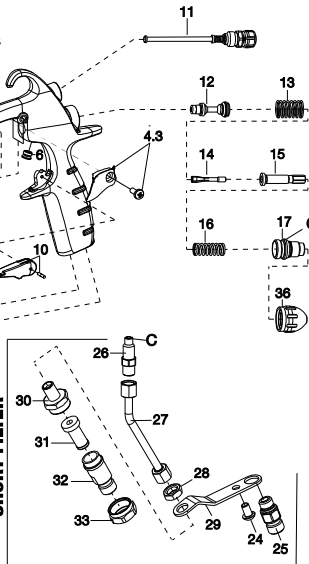
OPTION



LONG FILTER



SHORT FILTER

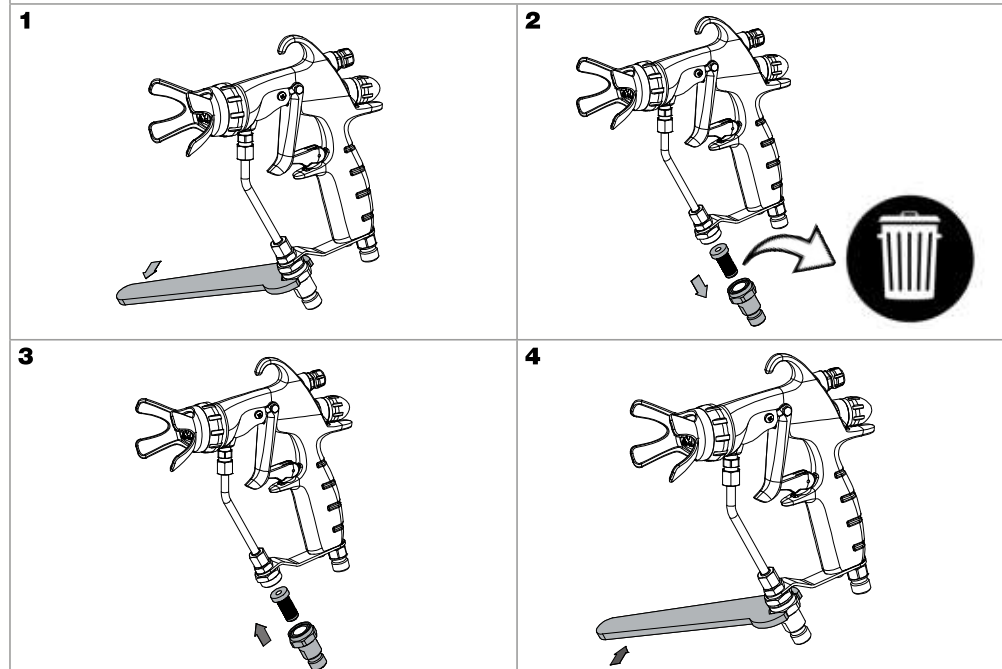


ref.	Code	Description	Version
1	93004420	AIR CAP COVER	
1.1	93004430	SPRAY TIP GUARD	
1	93004490	AIR CAP COVER	SHORT TIP GUARD DO NOT USE MORE THAN 50 BAR!
1.1	93004500	SHORT TIP GUARD	
2	93004320	AIR CAP	
4	93004160	NOZZLE + NEEDLE SET	
4.1	93004170	FLUID NOZZLE	
4.2	93004450	FLUID NEEDLE	
4.3	930336A0	NEEDLE PROTECTION KIT	
5	93004230	NOZZLE HOLDER	
6	93004310	PLUG	
7	93004300	NUT	
8	93004410	NEEDLE PACKING SET	
9	93004200	TRIGGER SET	
10	93004190	SAFETY LOCK SET	
11	93004290	PATTERN ADJUSTMENT	
12	93004260	AIR VALVE	
13	93004330	AIR VALVE SPRING	
14	93004240	COLLET	
15	93004250	NEEDLE BUSHING	
16	93004270	NEEDLE SPRING	250 bar
	93004150	NEEDLE SPRING	120 bar
17	93004280	NEEDLE GUIDE	
18*	930144A0	FLUID JOINT	LONG FILTER
19*	930140A0	FILTER CASE	

ref.	Code	Description	Version
20	VFM2004	FILTER 100 Mesh	
21	93004380	FILTER SPRING	
	93004360	FILTER JOINT G 1/4"	LONG FILTER
22	93002270	FILTER JOINT JIC 1/2"	
	93005670	FILTER JOINT NPSM 1/4"	
23*	930138A0	FILTER NUT	
24	93004350	SCREW	
25	93004340	AIR NIPPLE	
26	93004530	FLUID JOINT	SHORT FILTER
27	93004130	FLUID TUBE	
28	93514240	NUT	
29	93004140	PLATE	
30	93514230	FILTER CASE	
31	VFM2802/S	FILTER 100 Mesh	
	93515230	FILTER JOINT G 1/4"	
32	93002280	FILTER JOINT JIC 1/2"	
	93005680	FILTER JOINT NPSM 1/4"	
33	93516230	FILTER NUT	
34	03004520	SWIVEL JOINT - GAS	
	93005960	SWIVEL JOINT - NPSM	
35	94006030	ADAPTER G1/4"F - NPSM 1/4"M	
36	93004400	KNOB	
C	93004210	PACKING SET	
D	93004860	TIP NOZZLE PACKING SET	
D	93004850	TIP NOZZLE FILTER SET	
930155A0	LONG FILTER UPGRADE KIT (18* + 19* + 23*)		

Multi Spray Nozzle Tips (ref. 3) SELECTION CHART on page 15.

14. REPLACEMENT OF FILTER, IN MODELS WITH SHORT FILTER



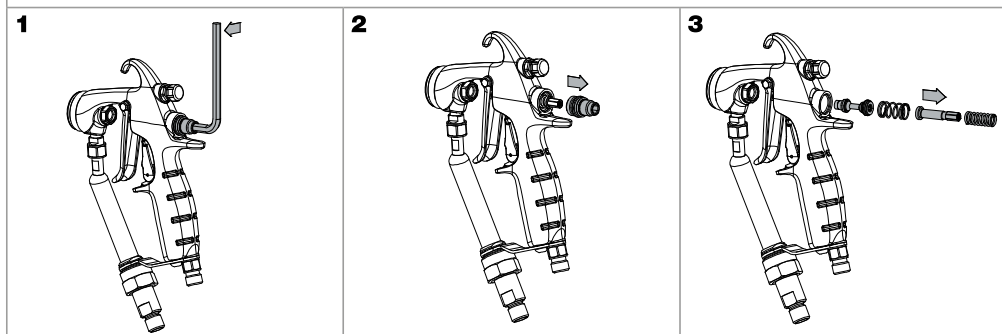
15. EXTRAORDINARY MAINTENANCE

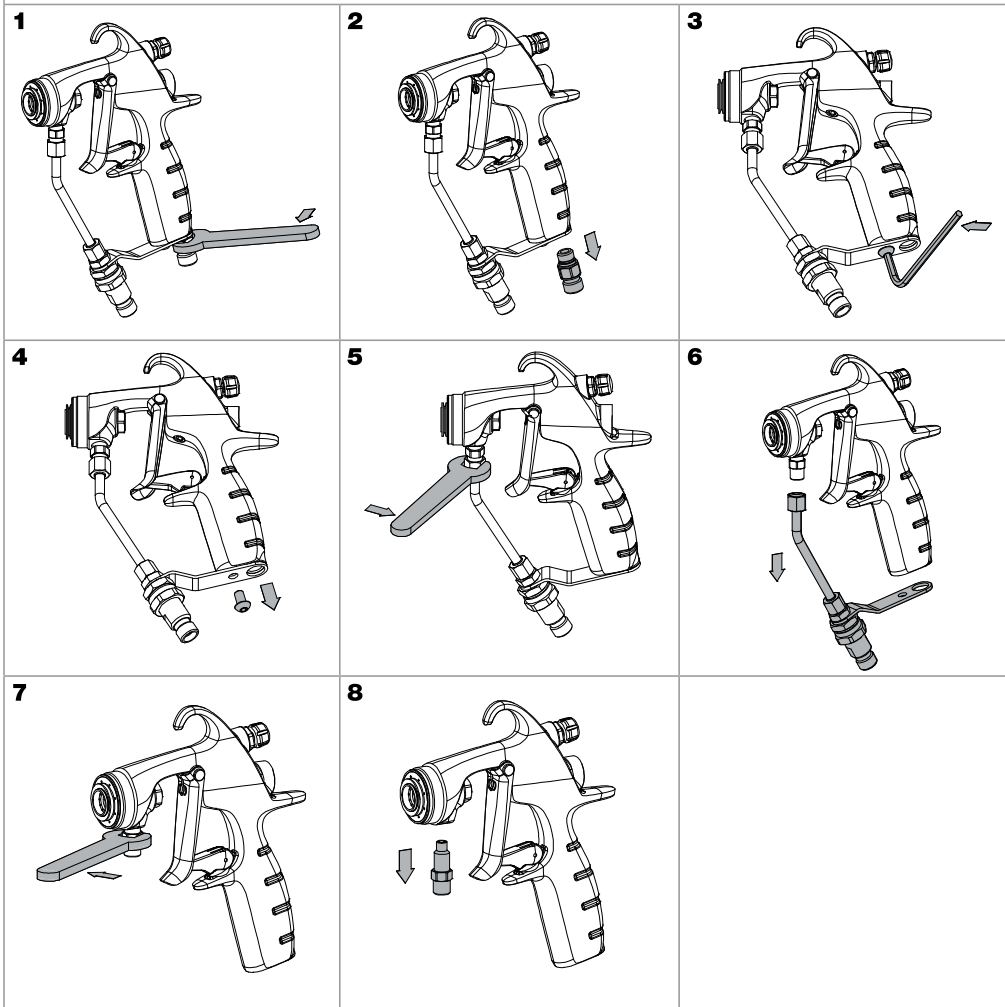
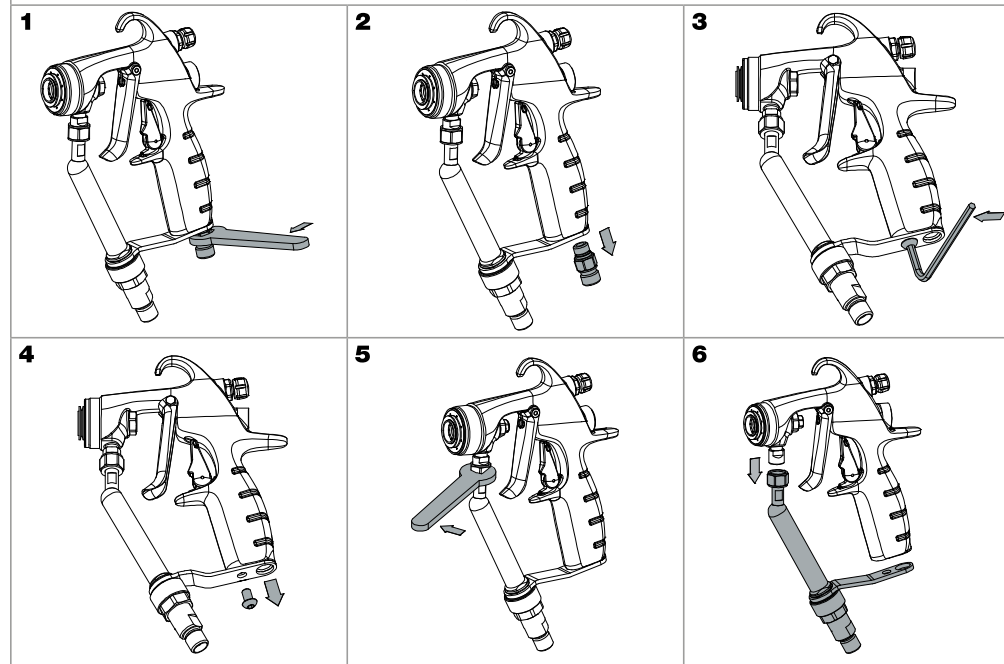
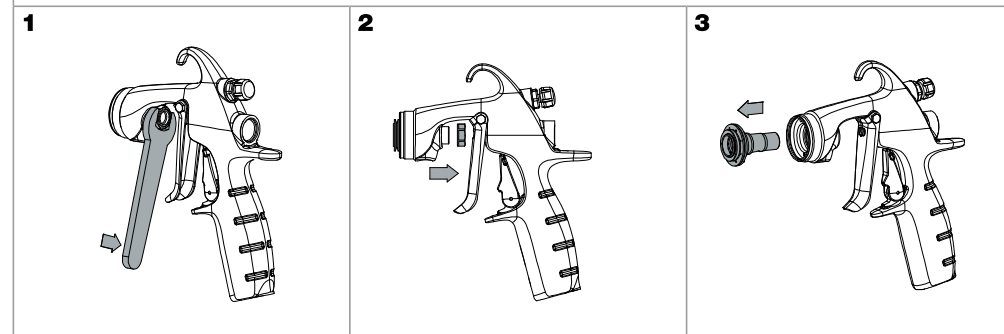
CAUTION



BEFORE TO DISASSEMBLE AIR VALVE, IT IS OBLIGATORY TO DISASSEMBLE NOZZLE TIP, NEEDLE SET AND NEEDLE PACKING AS DESCRIBED ON SECTION 12.1

15.1 DISASSEMBLING OF AIR VALVE



15.2 DISASSEMBLE OF FILTER SECTION, IN MODELS WITH SHORT FILTER**15.3 DISASSEMBLE OF FILTER SECTION, IN MODELS WITH LONG FILTER****15.4 DISASSEMBLE OF NOZZLE HOLDER**

PROBLEM	WHERE IT OCCURRED	WHERE TO CHECK	CAUSE	TIGHTEN	ADJUST	CLEAN	REPLACE
Air leaks	Each joint connection	All joints, connections	Weak tightening	x			
			Damaged				x
			Dirty			x	
	Air cap	Gun Body Air valve	Damaged				x
			Dirty			x	
			Worn				x
		Air valve spring	Weak spring				x
Fluid leaks	Each joint connection	All joints, connections	Weak tightening	x			
			Damage on seat				x
			Dirty			x	
	Fluid nozzle Air cap set holes	Fluid Nozzle Nozzle Holder	Weak tightening	x			
			Damaged				x
		Needle spring	Weak spring				x
		Air cap set	Damaged				x
			Dirty			x	
			Weak tightening	x			
	Fluid needle packing set	Fluid needle packing	Worn				x
		Fluid needle	Worn				x
		Fluid needle packing	Weak tightening	x			
Small or no fluid output	Fluid supply route	Fluid pressure	Pressure too low		x		
		Filter set	Clogged			x	x
		Filter hose	Clogged			x	x
	Tip of gun	Fluid nozzle	Clogged			x	
		Safety lock	Locked		x		
		Paint viscosity	Viscosity too high		x		
Paint resi- due buildup on air cap set	Air cap set	Air cap holes	Clogged			x	
			Deformed or damaged				x
			Paint build-up			x	
		Air cap, fluid nozzle	Deformed or damaged passages				x
		Fluid nozzle	Clogged			x	
			Worn or damaged				x
Incomplete pattern	Same as above	Same as above	Same as above				
	Atomizing air route	Atomizing air pressure	Too low (tails occur)		x		
			Too high (heavy at both ends of spray pattern)		x		

PAINT FILTER SELECTION

APPLICATION	NOZZLE TIP SELECTION CHART										PAINT FILTER SELECTION		
	Ø inch (mm)	10°	20°	30°	40°	50°	60°	70°	80°	90°	LONG FILTER	SHORT FILTER	
Natural and clear paints, Oils, Release agents, Stains	0,007 (0.18)	0710	0720	0730	0740						200 Mesh (74µ)	150 Mesh (100µ)	200 Mesh (74µ)
	0,009 (0.23)	0910	0920	0930	0940	0950							
Synthetic resin and PVC paints, Solvent and water paints	0,011 (0.28)	1110	1120	1130	1140	1150	1160	1170				150 Mesh (100µ)	
	0,013 (0.33)	1310	1320	1330	1340	1350	1360	1370	1380				
Primer, Filler, Rust Protection Paints, Latex paints, Dispersion paints, Roof coatings, Glue	0,015 (0.38)	1510	1520	1530	1540	1550	1560	1570	1580		100 Mesh (149µ)	65 Mesh (274µ)	150 Mesh (100µ)
	0,016 (0.41)	1610	1620	1630	1640	1650	1660	1670	1680	1690			
	0,018 (0.46)		1820	1830	1840	1850	1860	1870	1880	1890			
	0,020 (0.50)			2030	2040	2050	2060	2070	2080	2090			
	0,022 (0.56)		2220	2230	2240	2250	2260	2270	2280	2290			
Flame retardant, Spray putty, Corrosion protection, Filled colours	0,024 (0.61)			2430	2440	2450	2460	2470	2480	2490	50 Mesh (297µ)	60 Mesh (250µ)	
	0,027 (0.69)				2740	2750	2760	2770	2780	2790			
	0,029 (0.74)				2940	2950	2960	2970	2980	2990			
	0,031 (0.79)				3140	3150	3160	3170	3180	3190			
	0,033 (0.84)						3360						
Filled colours	0,035 (0.89)				3540	3550	3560	3570	3580	3590	30 Mesh (595µ)		
	0,039 (0.99)					3950	3960						
	0,041 (1.04)						4160	4170	4180	4190			

COMPARATIVE TIPS TABLE: ANEST IWATA - GRACO - WAGNER - KREMLIN on page 160.