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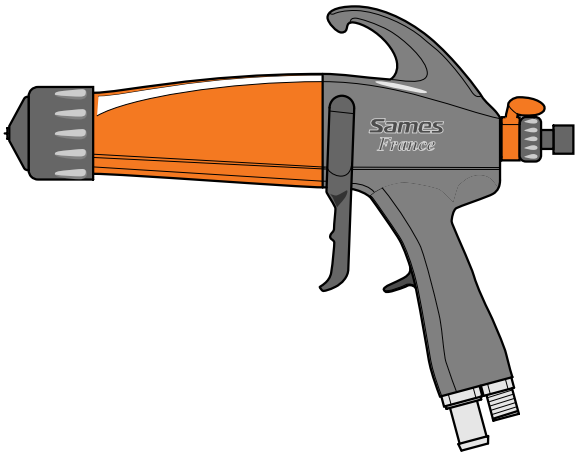

DES00520

User manual

MIV 6600 Atomizer
Types .1/.H1/Round Spray/
Fan Spray/Electrostatic HVLP

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MIV 6600 Atomizer
Types .1/.H1/Round Spray/
Fan Spray/Electrostatic HVLP

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WARNING : This document contains links to the following user manuals:
see RT Nr 6407 For the **AP 1000** Resistivohmmeter User Manual.
see RT Nr 6209 For the GNM 100 Module User Manual.

1. Safety Instructions

WARNING : Equipment performance is only guaranteed if original spare parts distributed by SAMES Technologies are used.

WARNING : Safety warning. This equipment may become a safety hazard if it is not operated, disassembled and reassembled in accordance with the instructions given in this manual and in any European Standard or national safety regulations in force.

The warning notice summarizing the safety rules (procedures and precautions) of this manual must be placed in a clearly seen position close to the coating product spraying station.

2. Regulations in Force

The **MIV 6600** atomizer must always meet the requirements stipulated in the standards and regulations in force concerning painting and clear coat methods (see European Standard EN 50.053 part 1, in particular for details concerning the use of this equipment in Europe.

2.1. International Mandatory Norms

- Connect the parts to be painted to the facility ground. This applies to all other metal parts in the paint booth. Before applying the product on the first part of the day, check there is no current fluctuation by bringing a part, that is electrically connected to the ground, closer to the nozzle. This test has to be carried out with set-values at their maximum (voltage and power), in non-exlposive atmosphere areas and with product supply off. Otherwise, contact «Sames Technologies».
- Install the control module outside the booth and at least 1.5 m from booth openings.
- Switch off the control module for all maintenance operations, particularly when cleaning the nozzle with solvents and thinners as these are generally highly flammable substances.
- The painter must wear antistatic shoes and work bare-handed or with gloves that are either antistatic or specially adapted to allow direct contact between the handle and the painter's hand.
- Personnel working in the vicinity of the painter must also wear antistatic shoes.
- Work on plain concrete floors or metal grating (the floor must not be made of plastic).

2.2. Useful Safety Hints

It is recommended to group together connecting cables and hoses to the atomizer and avoid leaving them trailing on the floor where they risk being cut,

- **GNM 100** module or supply module start-up should be interlocked with the booth ventilation system so that the **GNM 100** module can only be started up when the spray booth ventilation system is in operation.

3. Safety Instructions

Note: The warning notice (J) see § 13.10 page 55 must be placed close to the spraying area.

3.1. Risks and Hazards

Atomization	Concentration of flammable vapors greater than or equal to the lower explosive limit (LEL) due to poor ventilation in the work area.	Periodically check ventilation. The operator may be exposed to the risk of fire.
	Chemical reaction between a mixture of coating products and solvents in containers, paint hose or spray booth (e.g. on dry filters or water wash system).	This hazard cannot be eliminated at the equipment design stage. The operator must therefore take care to avoid the risk of fire or explosion. Consult the safety data sheets of the products used (contact product supplier).
	Use of coating products or cleaning solvents with a flash point higher than the ambient temperature.	This hazard cannot be eliminated at the equipment design stage. The operator must therefore take care to avoid the risk of fire. Consult the safety data sheets of the products used (contact product supplier).
	Parts to be sprayed or metal objects in or around the booth are not correctly grounded. This may generate sparks capable of igniting explosive vapors in the booth. All metal parts of the booth must be set to ground potential. The parts to be painted must be set to ground potential by a contact resistor of no more than 1 MΩ	The operator may be exposed to a spontaneous ignition hazard. Periodically check that the different parts of the spray booth are correctly grounded when handling these products.
Paints	Contact with coating products or cleaning solvents with any part of the body.	This hazard cannot be eliminated at the equipment design stage. It is essential for the operator to wear protective gloves.
	Inhalation of sprayed product vapors.	This hazard cannot be eliminated at the equipment design stage. It is essential for the operator to wear a respirator (active carbon filter) and protective goggles.
	Accidental swallowing of liquids used owing to unsuitable packaging or contamination.	This hazard cannot be eliminated at the equipment design stage. The operator must not keep any food or drink in the vicinity of his workstation.
Noise	The atomization air and paint spraying operations generate noise.	Operators should wear personal protection (ear-muffs, etc.).
Equipment	Unexpected flow of coating product or solvent following a break in the supply. This could be due, for example, to a clogged nozzle.	Switch off the pump and flush the circuit before removing the nozzle.
	Incorrect operation of the automatic trigger return function or paint needle leak resulting in uncontrolled flow of coating product or cleaning solvent.	Periodically check the condition of the different parts of the atomizer.
Trapped finger	The operator's finger gets trapped between the trigger and the handle when the trigger is pressed.	Take care when pressing and releasing the trigger.

Penetration	Hazard due to the presence of the high-voltage electrode on the atomizer nozzle.	The operator should take care not to prick himself with the electrode protruding from the air cap.
Spraying and compressed air ejection	Uncontrolled escape of coating liquid if the trigger is pressed unintentionally (for example: the trigger may be pressed if the gun is accidentally dropped).	Shut off the air and paint supply when equipment is idle for prolonged periods of time.
	Paint needle or air needle leakage.	Periodically check the needle and air distributor for leaks.
	Aging and wear of the parts of the atomizer (for example: damage to the gun, needle wear, split seal, etc.).	Periodically check the condition of the different parts of the atomizer.
	Escape of compressed air if the air is not cut off and flushed before removing the air / low voltage connector below the handle of the atomizer.	Close the air stop valve and flush the atomizer air circuit by pressing the trigger before inserting the connector.
Material damage	Parts coming loose due to vibrations	Periodically check the condition of the different parts of the atomizer.
	Equipment wear.	Periodically check the condition of the different parts of the atomizer.
	Physical damage to paint and air hoses.	Periodically check the condition of the needle and air hose.
	Chemical reaction between the different sprayed liquids or between these liquids and the materials from which the atomizer is made (list of materials available on request).	Consult the safety data sheets of the liquids used (contact supplier of these liquids).
Electrical hazard	Direct contact between the operator and bare electrical parts during GNM 100 if the cover is removed while the module is still energized.	This hazard cannot be eliminated at the equipment design stage. The operator must therefore take care to avoid the risk of electric shocks.
	Operator comes into direct contact with the pins of the low voltage connector below the handle if the compressed air is not cut off and if the GNM 100 is operating.	This hazard cannot be eliminated at the equipment design stage. The operator must therefore take care to avoid the risk of electric shocks or fire.
Thermal	The operator comes into contact with the handle, pump, paint hose unions when a paint heater is used and if the paint temperature exceeds 40 °C (104 °F).	This hazard cannot be eliminated at the equipment design stage. The operator must therefore take care to avoid the risk of burns.

3.2. Firefighting Equipment

A fire extinguisher suitable for use against oil fires should be installed close to the spraying area. Recommended type: CO2 (carbon dioxide) extinguisher.
It is also recommended to install either a retention tank to collect oil leaks or a sand box and shovel.

3.3. Possible Risks

Safety Device	Risk
Air cap nut missing.	Risk of air cap and nozzle being blown off due to paint pressure: risk of injury.

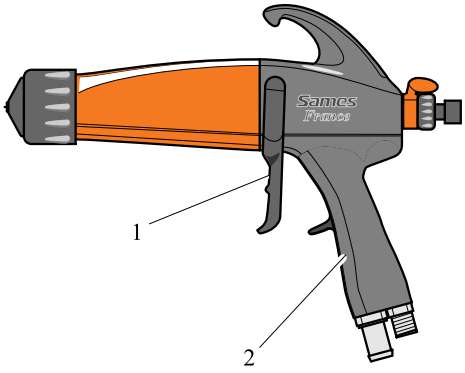
3.4. Misuse of Equipment

This list is not exhaustive.

Do not use the **GNM 100** and the air flow switch inside the spray booth.
The air flow switch must be secured to the **GNM 100**
Do not press the trigger with the atomizer close to **GNM 100** while it is operating.
Do not pull too hard on the air or paint hose.
Do not leave air or paint hoses trailing on the floor or in areas where they are liable to be crushed by industrial vehicles.
Do not press the trigger when the gun is pointed towards a person or animal.
Do not spray unauthorized coating liquids.
Do not drop the atomizer or subject it to impacts.
Do not use the atomizer without an air cap or nozzle.
Do not use the gun or air cap of the atomizer to handle or move the parts to be painted.
Do not leave the atomizer (or the **GNM 100**) on the floor when it is not in use.
Do not leave the equipment pressurized at the end of the shift.
Do not pour liquid onto the equipment (or soak it).
Do not leave the equipment exposed to the weather when working outside.
Do not connect the atomizer to an air or coating product supply with unsuitable pressure levels.
Do not spray solvents or diluent at high voltage.
Do not use a quick-disconnect clip to actuate the trigger.
Do not allow coating products, solvents or diluent into the air circuit.
Do not disconnect the quick-disconnect plug below the handle while the **GNM 100** is operating or the air stop valve is open.
Do not start up the **GNM 100** after disconnecting then reconnecting the low voltage quick-disconnect plug, without first pressed the trigger for at least 15 seconds to flush the air.
Do not connect the **GNM 100** to a mains supply that is not suited to the operating voltage.
Do not leave the low voltage air hose on the floor, disconnected from the atomizer. Do not allow diluent to enter the hose. Do not clean the inside of this hose with diluent.

4. Description

MIV 6600 atomizers are designed for manual electrostatic mode pneumatic spraying (air pressure: 6 bar maximum) for solvent-based liquid paints and clear coats, but strictly not for any other type of liquid product.



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These atomizers are designed to be fed with materials by a low-pressure supply system (6 bar max.) such as a pressurized tank or diaphragm pump.

They are design to receive low voltage and compressed air supplies from the **GNM 100** electrical control module. This module is used to adjust the high voltage and maximum current delivered to the atomizer. A display shows any electrical malfunctions. The high voltage supply can be switched off on the control module.

MIV 6600 atomizers are fitted with a pneumatic air flow switch that establishes the high voltage if the trigger (1) is pressed with the compressed air flowing.

The **MIV 6600** is fitted with a connector below the handle (2) for fast and simultaneous connection/ disconnection of the spraying air and low voltage cable.
This connector must be used only when necessary for urgent maintenance of the atomizer and in strict compliance with the safety instructions stipulated for its use.

The **GNM 100** may be connected to or disconnected from the atomizer / air flow switch assembly. The low-voltage cable between the **GNM 100** module and the atomizer is located inside the compressed air hose to ensure its protection. The power unit is built into the atomizer.

MIV 6600 atomizers come with either a fan spray or a round vortex spray:

- the round spray version is available with 6-, 8- and 12-mm calibers;
- the conventional fan spray

Whatever the case, the round spray nozzle caliber and/or fan air cap must be selected according to the characteristics and flow of paint used, the size of the pattern required and the paint viscosity.

Depending on the resistivity of the paint and flow range required, the paint supply hose is grounded either via the union situated at the end of an insulated hose connected to the atomizer (version .H1) or below the handle of the atomizer (version .1).
MIV 6600 atomizers do not need a paint column to conduct or produce the electrostatic charge.
When applying waterborne paints, a special version of the atomizer, the MIV 6600 W, needs to be used with a suitable supply system.

5. Technical Data

5.1. MIV 6600 Range

Depending on the part to be painted, and the resistivity and viscosity of the paint being used, one of the following versions of the **MIV 6600** will be used.

5.1.1. Fan Spray

Viscosity	Resistivity: 1 to 500 MΩ.cm (1) Paint flow rate 100 to 750 cm3/mn (2)	Resistivity: 10 to 500 MΩ.cm (1) Paint flow rate 100 to 750 cm3/mn (2)
14 to 40 seconds, AFNOR cup 4. 45 to 200 seconds, AFNOR cup 2.5.	**MIV 6600**.H1 fan spray	**MIV 6600.1** fan spray

- Length of paint hose see § 5.3 page 12.
- Length of air hose: 9, 15 or 20 m.

(1) Measured using SAMES resistivohmmeter "**AP 1000**" see RT Nr 6407.

(2) The maximum sprayable material flow depends on the paint supply system, the nozzle used, the surface tension of the paint used (wetting power), the required surface finish and, above all, the viscosity of the paint used. The maximum flow rate is indicated for a round spray, a finish deemed correct for industrial use, and within the normal viscosity range. This maximum paint flow increases as the viscosity value drops.
Flow rate using diaphragm pump 753472 in versions equipped with paint hose of 9 m total length. The maximum flow rate given is measured with a paint calibrated at 25 seconds AFNOR cup 4 or 130 AFNOR cup 2.5.

5.1.2. Round Spray

These versions will be used for painting tubular or wire-mesh objects (see § 9.1.2 page 16).

- Type **MIV 6600.H1** round spray.
- Resistivity of 1 to 500 MΩ.cm (1).
- Paint flow rate of 70 to 750 cm^3/mn. depending on caliber (2).
- Paint viscosity of 14 to 40 seconds, AFNOR cup 4, or 45 to 200 seconds, AFNOR cup 2.5.
- Standard caliber 8 (calibers 6 and 12 on request).
- Length of paint hose see § 5.3 page 12 .
- Length of air hose: 9, 15 or 20 m.

(1) Measured using SAMES resistivohmmeter "**AP 1000**" see RT Nr 6407.

(2) Flow rate using diaphragm pump with 1/1 ratio in versions equipped with paint hose of 9 m total length (5 m of insulated hose + 4-m extension). The maximum flow rate given is measured with a paint calibrated at 25 seconds AFNOR cup 4 or 130 AFNOR cup 2.5. This flow rate depends on the injector caliber (see § 9.1.5.1 page 18).

5.2. General Characteristics of MIV 6600 Atomizers

Characteristic	Value
Marking	CE 0080 Ex II 2 G ISSeP00ATEX018 EEx 0,24mJ
Length	approx. 290 mm using the round spray, approx. 300 mm using the fan spray
Weight, without cable or hose	625 g
High voltage	0 to 60 kV
Current	0 to 60 µA
Output characteristics voltage/current	rectangular
Maximum compressed air pressure	6 bar (90 PSI)
Maximum paint pressure	6 bar (90 PSI)
Air connection	3/8" BSP female, grooved union supplied (for hose with internal diameter of 12 mm or 8 mm) or 1/4 " NPS male
Paint circuit inlet union	3/8" NPS female

5.3. Characteristics of Paint Hoses

- Version .1 : 9 m (Std), 15 m or 20 m (on request),
- Version .H1: 9 m (Std), 14 m or 20 m (on request),

For version .H1 only, this length is in two sections, and includes a 5-m insulated plastic hose at the atomizer end. The insulated plastic hose is protected by a special elastomer hose, which provides a ground for the metallic union situated 5 m below the handle.
The elastomer paint hose withstands attack from both conductive (polar) and non-conductive (non-polar) diluents as well as materials containing such diluents.
The length of the rubber (elastomer) extension of the paint hose is:

- Version .1 : 9 m (Std), 15 or 20 m (on request),
- Version .H1: 4 m (Std), 9 m or 15 m (on request),

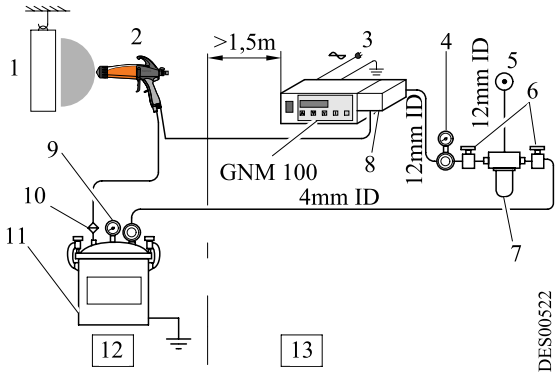
6. Operation of the MIV 6600 Atomizer

The atomizers are fitted with a device for quick adjustment of the spray pattern and automatic adjustment of the paint flow rate to this pattern.
Pressure on the trigger, after taking up the play, opens the atomizing air valve then gradually draws the needle of the paint valve out of its seat until its rod comes up against the adjustment button. The air valve is in a rotary distributor, screwed in its housing and controlled by a lever at the rear of the handle, which also is also fitted with the paint flow adjustment button.
When the lever is pushed as far as possible to the right, the paint flow is reduced to the chosen minimum and the spray is very narrow and penetrating.
When the lever is pushed as far as possible to the left, the paint flow is increased to the chosen maximum and the spray is very wide, covering a large area, especially if the round spray is used.

7. Installation

WARNING : The GNM 100 control module and the air flow switch must be installed outside the spray booth (clear of the explosive area), at least 1.5 m from any booth openings. The GNM 100 control module is installed on the support of the RFV 476 carriage.

7.1. Installation with a Pressurized Tank

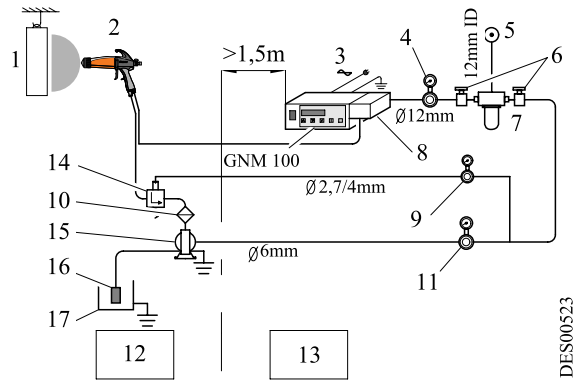


1	Part to be painted
2	**MIV 6600** atomizer
3	Single-phase mains, 220 V, 50 Hz + ground
4	Air pressure release valve 0-6 bar - 50 m_0^3/h (atomizing air setting)
5	Compressed air network
6	Stop cocks
7	Oil-removing filter
8	Air flow switch
9	Air pressure release valve 0-6 bar - 20 m_0^3/h(setting paint flow air)
10	150 µm filter
11	Pressurized tank
12	Explosive area
13	Area with no risk of explosion

Note: m_0^3/h volume at atmospheric pressure and a temperature of 20˚C .
It is advisable to fit a pneumatic stirrer on the pressure tank to stir the paint.
A filter with a 150 µm screen should be fitted at the paint inlet of the atomizer.

WARNING : The pressure tank and the paint filter (if it is metallic) must always be connected to an electrical ground. The safety of the equipment depends on them.

7.2. Installation with a Diaphragm Pump



1	Part to be painted
2	**MIV 6600** atomizer
3	Single-phase mains, 220 V, 50 Hz + ground
4	Air pressure release valve 0-6 bar -50 m_0^3/h (atomizing air setting)
5	Compressed air network
6	Stop cocks
7	Oil-removing filter
8	Air flow switch
9	Air pressure release valve 0-6 bar -5 m_0^3/h Setting the regulator control pressure (paint flow rate setting)
10	Air pressure release valve 0-6 bar - 20 m_0^3/h (setting of pump air supply)
12	Spray booth
13	Area with no risk of explosion
14	Paint flow rate regulator
15	Diaphragm pump
16	Strainer
17	Paint container

Note: m_0^3/h volume at atmospheric pressure and a temperature of 20˚C .
It is advisable to fit the diaphragm pump with a valve on the return line to the paint container in order to prime the pump and stir the paint.

WARNING : The paint container, the diaphragm pump, and the paint filter if it is metallic, must be connected to ground at all times. The safety of the equipment depends on this.

7.3. Connection of the air flow switch

The air flow switch, delivered connected to the atomizer and not secured to the control module, is connected to the atomizing air inlet. The air flow switch air inlet has a 3/8" BSP thread. The grooved union supplied is for connecting an air hose withan internal diameter of 12 mm (or 8 mm). A 1/4" NPS male union is also supplied.

Type.1

- Connect union (item 79') located on the hose (item 78') with the union (item 70') located on the gun handle.
- Tighten enough the union in order to ensure a good tightness.

Type.H1

- Connect union (item 79') located on the hose (item 78') with the union (item E) located on the gun handle.
- Tighten enough the union in order to ensure a good tightness.

All types

- Taking care to align correctly the alignment notches, tighten the air union of the air flow switch (see § 13.9 page 54) on the air union located under the handle.
- Tighten enough the union in order to ensure a good tightness.

8. Paint Recommendations

In general, all paints and varnishes used with conventional pneumatic atomizers (including slightly metallic paints) can be used in the normal way with the MIV 6600 atomizer.
Paints with a high metallic pigment content, or paints containing large-grain metallic pigments must be applied using a special device (contact Sames).

8.1. Viscosity

The best results are obtained with a viscosity between 25 and 30 seconds, AFNOR cup 4. However, paints with a lower or higher viscosity (for example 14 to 40 seconds or more) can be sprayed.

8.2. Resistivity

Use a paint with suitable resistivity for the version of the **MIV 6600** atomizer that you are using (see § 5.1 page 11). The optimum resistivity range is between 10 and 100 MΩ.cm. If it is lower the wraparound effect is good but there may be back spray onto the operator is the booth is inadequately ventilated, especially when using the round spray.
A much lower resistivity level (for example 0.1 MΩ.cm) will short circuit the high voltage and therefore prevent any wraparound effect. If the resistivity is too high (for example 1000 MΩ.cm), the wraparound effect will be greatly reduced. The SAMES resistivohmmeter "**AP 1000**" is designed to provide an easy check of the paint resistivity see RT Nr 6407 .

8.3. Flash Point

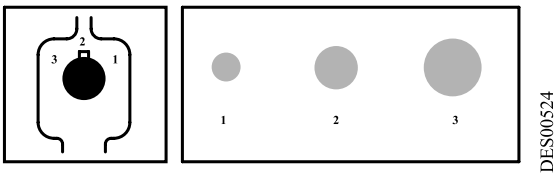
Use paints with as high a flash point as possible, preferably higher than the ambient temperature.

9. Use

9.1. Using MIV 6600 Atomizers

9.1.1. Atomizer Operation

- With both versions of this atomizer (fan spray and round spray), the very straightforward operation of switching to different spray dimensions can be carried out while working. Retouching, preparation or finishing is possible for all shapes without having to rework the part several times.



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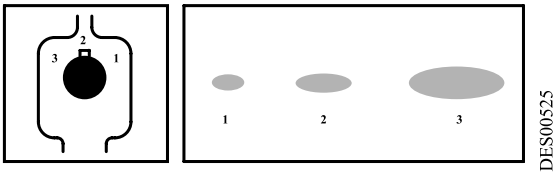
•In its "round spray" version the atomizer produces a distinctly circular impact, which gradually widens as the lever at the rear of the handle is moved from right to left (see above). The tight conical spray in position 1 (see right, view from behind) can be used to paint recessed or deeply set areas of the parts. The wide conical spray, position 3, with a low-axial-speed vortex movement is used to paint large areas and tubular assemblies with maximum wraparound effect.
•All the intermediate spray dimensions can be obtained by setting the lever between position 1 and position 3.



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•In its "fan spray" version, the atomizer is used mostly for painting large flat areas requiring a perfect finish.
•It gives the patterns shown in the picture on the left. Starting with a tightly closed circular spray with the lever in position 1, the pattern is gradually widened to reach its maximum in position 3.

9.1.2. Use of Round Spray Injectors and Air caps

The round spray version of the atomizer is delivered, as standard, with the caliber 8 nozzle. This setup can be used to spray between 150 and 650 cm3/mn. of paint. It is therefore perfectly suited to parts with a medium surface area, for example: garden and camping furniture, metal furniture, cycles, etc.

For painting parts with a small surface area (wire objects, display units), the caliber 6 nozzle assembly should be used, providing a very good finish at rates between 70 and 400 cm3/mn.
However, if the parts have a large surface area: agricultural or public works equipment, we recommend the caliber 12 nozzle assembly, see § 13.5 page 50.
The fan spray setup is best for large parts requiring a good finish but with less wraparound effect. An **MIV 6600** equipped for the round spray can be modified into a conventional **MIV 6600** fan spray by replacing the nozzle, air cap and air distributor.

9.1.3. Using Fan Spray Injectors and Air caps

In its conventional fan spray version, the atomizer is delivered with a nozzle and conventional nozzle cap, see § 13.5 page 50. This setup can be used to produce good results at a rate of 100 to 750 cm3/mn. for .H1 version and version.1 (viscosity: 25 seconds, AFNOR cup 4 with maximum spray patterns of approx. 18 to 47 cm depending on the flow rate). Higher viscosity levels (up to 40 seconds, FORD cup, or even higher) can be used. For flow rates of various paints, see § 9.1.5.2 page 18 . **MIV 6600** atomizer equipped for conventional fan spray can be modified into an **MIV 6600** round atomizer by replacing the nozzle, cover and air distributor.

9.1.4. Paint Flow Adjustment

The paint flow rate is adjusted by changing the pressure of the paint feed and/or the position of the adjustment button. For a viscosity of 25 seconds, AFNOR cup 4, set the pressure to 1 to 2 bar for a round atomizer and 3 to 4 bar for a fan atomizer (hose length: 9 m). Turn the lever at the back of the handle as far to the right as it will go (position 1) then turn the flow rate adjustment, keeping the trigger pressed, until the paint flow stops. Then turn the adjustment button back by approx. half a turn: the atomizer is set.

Note: Never disassemble the needle assembly when the paint hose contains solvent or paint.

Turn the lever to a suitable position for the work to be carried out and adjust the paint pressure to obtain the covering speed required.

If necessary, fine-tune the button setting. The paint flow rate then varies according to the position of the lever setting the spray pattern.

9.1.5. Adjusting the Atomizing Air Pressure

For a suitable paint (resistivity between 5 and 100 MΩ.cm and viscosity of 25 seconds, AFNOR cup 4) and a good finish, the air settings will be as follows:

9.1.5.1. Round Spray Version

	Injector caliber	**6**			**8**			**12**		
Paint	Flow (cm3/mn.)	70	200	400	150	300	650	150	300	750
Atomizing air	Flow (Nm3/h) (1)	6.7	8.4	15.5	7.5	11.7	17	9	13	23
	Pressure (bar) (2)	1.3	1.7	4	1.3	2.3	3.7	1.4	2.3	4.5
	Pattern size (3)	32	33	28	38	36	34	43	42	38

9.1.5.2. Conventional Fan Spray Version

Paint	**Flow (cm3/min.)**	**100**	**300**	**500**	**750**
Atomizing air	Flow (Nm3/h) (1)	12.3	14	18.5	25
	Pressure (bar) (2)	1.3	1.5	2.3	3.4
	Pattern size (3)	18	34	44	45

(1) Flow rate in Nm3/h "normal cubic meters per hour", i.e. at normal atmospheric conditions, and therefore drawn in by the compressor (1 Nm3/h = 0.621 SCFM). (2) Pressure measured at the inlet of the standard 9-m air hose.

(2) Increase these pressures from 0.5 to 1.5 bar for a 15-m air hose. Increase them by 2 to 2.5 bar for a 20-m air hose but do not exceed a maximum pressure of 6 bar. The pressures given are measured when the air is flowing to the air cap.

(3) Maximum size of the paint spray (lever in position 3), with a spraying distance of 25 cm and high voltage of 60 kV. The Pattern size is approximate. This spray size is approximate.

Note: When using higher viscosity or poorer quality paints, or to obtain even finer finishes, the air pressure may need to be increased slightly.

The pressure of the atomizing air is reduced in the atomizer so that the air pressure is less than 0.67 bar behind the air cap (boundary between High Volume Low Pressure spraying and conventional pneumatic spraying), when the air at the hose inlet reaches 5.5 bar (pressure measured when the air is flowing, with a 9-m long air hose).
For difficult cases (paints that are difficult to spray, high paint flow rate), this limit may be exceeded, if the air compressor allows it, by increasing the atomizing air to a value between 5.5 and 6 bar (with the air flowing) at the air hose inlet. In this case, conventional pneumatic spraying must be used.

For low-pressure spraying, the air speeds at the outlet of the air cap are limited to a few tenths of the speed of sound. This reduces the mist and noise emitted by the atomizer without detracting from the fineness of spraying.

Atomizing air pressure in the cap can be measured accurately with a special cap with pressure tappings. Contact the SAMES agent.

Note: If the air pressure at the center of the air cap is less than 0.2 bar (3 psi), an acceptable spray compatible with the fan spray cannot be obtained.

10. Cleaning

The atomizer must be cleaned immediately after use, as with all paint atomizers.

WARNING : Never soak the atomizer in solvent,

The recommended cleaning procedure is as follows:

Switch off the GNM 100 control module (compulsory),

- Use a suitable solvent:
  - Grease-free solvent
  - With high resistivity
  - Do not use a chlorinated solvent
- Wash the paint circuit and rinse it with solvent (after switching off the atomizing air),
- Unscrew the nut securing the spraying nozzle cap, remove the cap and clean it. Also clean the injector taking care to protect its tip which controls the fineness of the spray,
- Clean the outside of the atomizer with a brush soaked in solvent and wipe it immediately,
- Refit the cap and its nut,
- Dry the atomizer before switching the **GNM 100** control module on again.

Never disassemble the needle assembly when the paint hose contains paint or solvent.

WARNING : When cleaning the nozzle, always point the spray nozzle towards the ground to prevent fouled solvent from flowing into the gun ducts.

WARNING : After each cycle of cleaning, dry with compressed air the conducts and the paint hose to eliminate any trace from solvent.

WARNING : For any operation of assembly or cleaning, ensure that the special screws (see § 11.9.2 page 30 item 45) location are clean.

11. Maintenance

WARNING : Before carrying out any work on MIV 6600 atomizers you must always:

Switch off the GNM 100 control module.

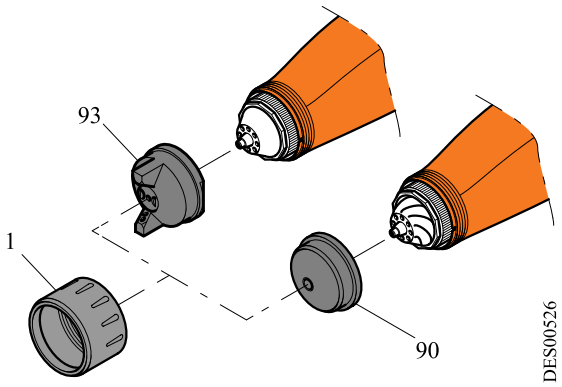
- Disconnect the **GNM 100** control module power cable from the mains,
- Clean the paint hose with solvent (see § 10 page 19),
- Switch off the atomizing air supply, then depressurize the air hose by pressing the atomizer trigger,
- Switch off the paint or solvent supply; before working on the paint tube it should be flushed with compressed air, keeping the atomizer trigger pressed.

Note: Disconnection / connection of MIV 6600 atomizers from the GNM 100 control module. It may be convenient, for maintenance work on the atomizer, to disconnect the atomizer from the control module. For the GNM 100 control module see RT Nr 6209.

11.1. Round Spray and Fan Spray Caps

11.1.1. Disassembly

- Loosen the air cap nut (1).
- Remove the air cap (90) or (93).



1	Air cap nut
90	Round spray air cap, caliber 6
	Round spray air cap, caliber 8
	Round spray air cap, caliber 12
93	Conventional fan spray cap

11.1.2. Reassembly

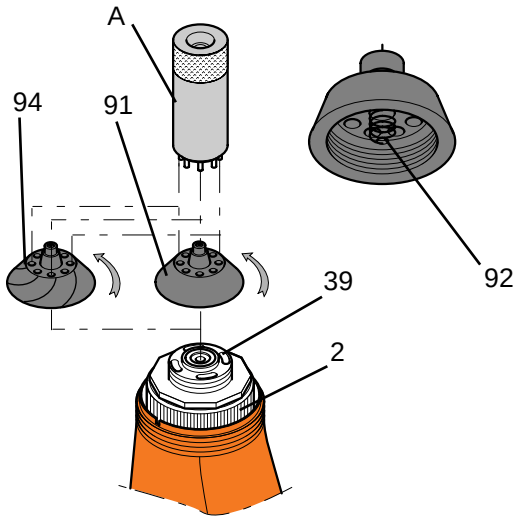
WARNING : Air caps (round spray, fan spray) are of the parts of first priority whose frequency of replacement under the normal conditions of use is three to six months.

- Carry out the disassembly operations in reverse order, taking care to keep the cap and nozzle clean
- Tighten the air cap nut moderately by hand.

11.2. Round Spray and Fan Spray Nozzles

11.2.1. Disassembly

- Unscrew the cap see § 11.1 page 20 .
- Position tool (A) on the front end of the nozzle (91). Turn the tool so that the 8 pins interlock with the holes in the nozzle (91) see § 13.10 page 55 .
- Unscrew the nozzle (91).
- Take care not to lose the high voltage electrode spring (92 see § 11.3 page 22 or see § 11.6 page 24 located inside the nozzle, and the nozzle support O-ring (39).



2	Nozzle nut
39	O-ring
91	Round spray nozzle, caliber 6
	Round spray nozzle, caliber 8
	Round spray nozzle, caliber 12
92	Electrode spring
94	Conventional fan spray nozzle
94"	Standard "automobile finish" fan spray nozzle with electrode

11.2.2. Reassembly

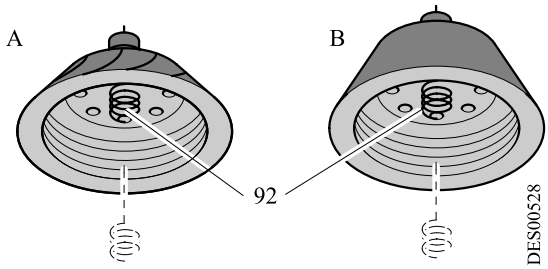
WARNING : Nozzles (round spray, fan spray) are of the parts of first priority whose frequency of replacement under the normal conditions of use is three to six months.

- Check that the O-ring (39) is in place on the nozzle support and in good condition. Replace it if necessary. Check that the electrode spring (92) see § 11.6 page 24 or see § 13.5 page 50.
- Tighten the nozzle (91) by hand.
- Complete the tightening of the nozzle using tool (A) see § 13.10 page 55. Do not tighten excessively.

11.3. High Voltage Electrode Spring

11.3.1. Disassembly

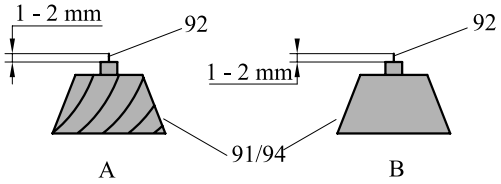
- Disassemble the cap see § 11.1 page 20.
- Disassemble the nozzle see § 11.2 page 21.
- Pull on the rear part (spring) of the high-voltage electrode (92) to remove it.



92	Electrode spring

11.3.2. Reassembly

- Thread the straight part of the electrode spring through the central hole of the round spray diffuser, or the fan spray injector, accessible via the rear of the nozzle.
- Refit the nozzle on its support (see § 11.1 page 20).
- If necessary, cut the straight part of the electrode extending beyond the front of the round spray diffuser or fan spray injector using cutting pliers: the overrun must be between 1 and 2 mm.
- Refit the atomizer air cap.

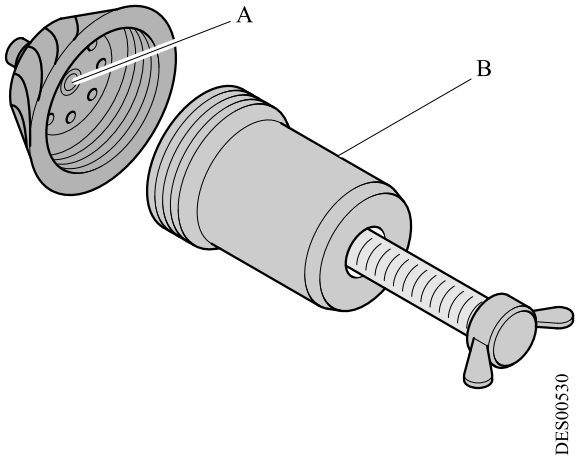


92	Electrode spring
A	Round spray version (caliber 6, 8 and 12)
B	Conventional Fan spray version

11.4. Round Spray Diffusers

11.4.1. Disassembly

- Remove the atomizer air cap (see § 11.1 page 20).
- Disassemble the nozzle (see § 11.2 page 21).
- Remove the high-voltage spring see § 11.3 page 22.
- Screw tool B on the nozzle, with the butterfly nut fully unscrewed, and drive out the diffuser by screwing the butterfly nut see § 13.10 page 55.
- If necessary, clean the nozzle and diffuser with solvent.



A	Diffuser
B	Tool (B) (see § 13.10 page 55)

11.4.2. Reassembly

- Place the diffuser in the cavity of diffuser fitting tool C
  see § 13.10 page 55 there is also a tool for each round spray caliber. The diffuser channeling must face towards the front of the nozzle.
- Insert the diffuser, mounted on the tool at the front of the nozzle. The diffuser is in the correct position when:
  - the front side of the diffuser is flush with the nozzle (tool resting against the front of the nozzle),
  - the diffuser grooves are inside the nozzle and can no longer be seen.
- Refit the high-voltage electrode spring (see § 11.3 page 22).

11.5. Conventional Fan Spray Injectors

In the conventional version, the nozzle and injector are a single part.

For the "automobile" finish nozzle option, the injector can be disassembled/reassembled using tool (B) see § 13.10 page 55.

The distance by which the injector extends beyond the fan spray cap must be set between 0.4 and 0.8 mm.

11.6. Nozzle support

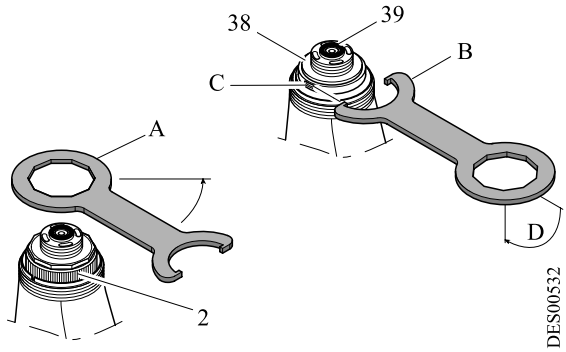
11.6.1. Disassembly

- Remove the atomizer air cap (see § 11.1 page 20).
- Remove the nozzle (see § 11.2 page 21), taking care not to lose the high-voltage electrode spring.

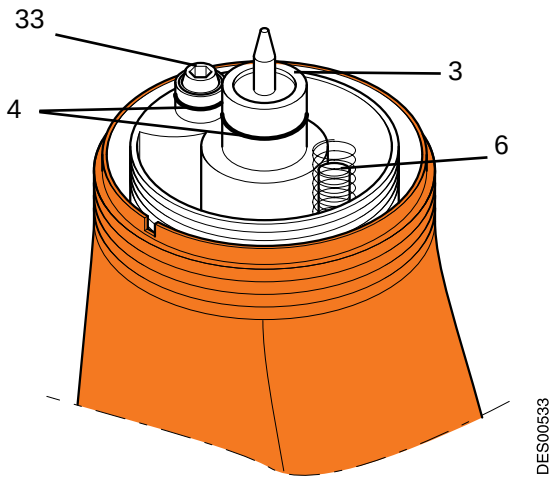
Note: The nozzle support can be removed without disassembling the nozzle.

- Using the special 10-sided wrench (B), remove the nut securing the nozzle support (see figure below).
- The nozzle support (38) fits into the front of the gun. Fit the two prongs of the wrench (D) into the notches on the nozzle support (see below). Using the gun as the bearing point, and the 10-sided end of the wrench as a lever, extract the nozzle keeping it parallel to the atomizer axis.

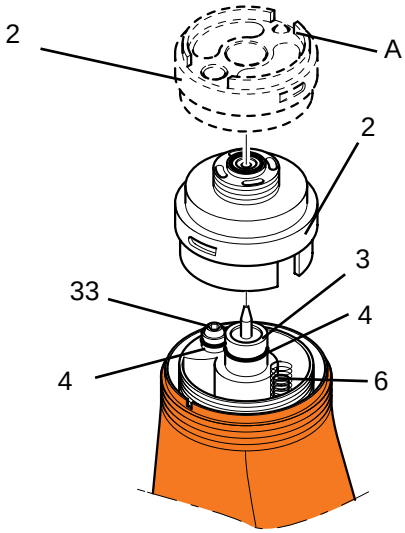
WARNING : Do not use the prongs of the fork wrench (D) to tighten or loosen the nozzle support.



2	Nozzle support nut
38	Nozzle support
39	O-ring - FEP



•Check the condition of the nozzle support O-ring (39) and replace it if necessary.
•The white seal packing assembly (3) must remain attached to the gun during disassembly. If it has become detached, extract it from the support using tool (G) see § 13.10 page 55 . Refit it by gluing it in the gun see § 11.8 page 28 .
•Check the condition of the seal packing assembly O-ring (4) and replace it if necessary.
•If they are soiled, clean the accessible areas of the front of the gun with a fine brush and solvent or thinner. Point the front of the gun towards the ground to prevent any solvent from running into the air ducts of the gun, then dry the front of the gun with compressed air.



A	Metal contact
2	Nozzle support
3	Seal packing assembly
4	O-ring - solvent resistant
6	Spring
33	Paint union

11.6.2. Reassembly

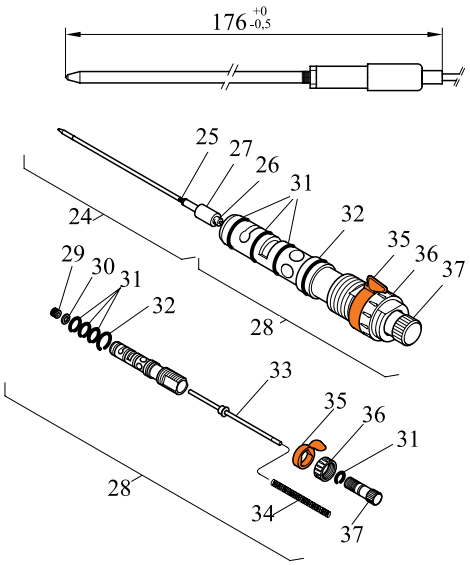
WARNING : Nozzle support is of the parts of first urgency whose priority of replacement under the normal conditions of use is 1 year.

- Position the nozzle support (2) at the correct angle on the white seal packing assembly (3): the metal contact of the nozzle support must face the spring (6) secured to the gun.
- Slowly slide the nozzle support onto the seal packing assembly, pushing it in parallel to the atomizer axis. Use the nozzle support nut to position the nozzle support correctly. Take care not to damage the white O-ring (4) of the seal packing assembly during this operation. Check that the paint union (11) of the gun fits, without forcing, into the housing on the nozzle support (do not damage the O-ring (4)).
- Tighten the nozzle support nut without excessive force using the 10-sided wrench (D) (see § 13.10 page 55).
- Check the sealing of the assembly by connecting a supply of solvent under 6 bar to the atomizer, with the control module switched off. There should be no solvent or thinner leakage around the nozzle support nut.

11.7. Needle Assembly

The needle assembly comprises:

- an air distributor (28) that divides the incoming air into atomizing air and fan air for the fan spray, or directional air and vortex air for the round spray. Different distributors exist for the fan spray and the round spray (identical for calibers 6, 8 and 12.The distributor is controlled by a lever (35) at the rear of the atomizer,
- a delay box (27) that stops the paint supply then the air supply to the atomizer air cap when the trigger is pressed; it allows the atomizing air then the paint to flow into the cap when the trigger is pressed; the delay box is linked to the air cap by a pin (26); it is identical for all MIV 6600 models,
- a needle (24) controlling the entry of the paint into the nozzle; the needle is identical for all MIV 6600 models; it is screwed to the delay box and secured by a lock nut (25).



DES00536

24	Needle + plastic nut
25	Plastic H M 3 nut
26	Pin
27	Delay box
28	Round spray distributor assembly
	Conventional fan spray distributor
29	Packing nut
30	Air seal
31	Small ring
32	Large ring
33	Air needle
34	Needle spring
35	Air adjustment lever
36	Lever nut
37	Distributor nut

11.7.1. Disassembly

- Loosen the nut (36) at the back of the atomizer by a few turns.
- Pull the lever (35) towards the nut (36) and fully unscrew the needle assembly.
- Be careful to pull the lever in line with the atomizer axis, to avoid damaging the needle. Remove the needle assembly.

11.7.2. Maintenance

- If there is an air leak at the air distributor or if one of the beveled rings (31) or (32) of the distributor is damaged, take the following actions:
  - Remove the damaged ring by separating its beveled ends,
  - Fit a new ring on the distributor keeping the beveled ends abutted (to shape the seal).
- If paint leaks from the needle once the trigger has been released, or if the gold-colored pointed tip of the needle is damaged, take the following actions:
  - Loosen the plastic nut (25),
  - Loosen the needle (24) of the delay box (27),
  - Fit a new needle,
  - Adjust the length of the needle to between 175.5 and 176 mm, (see figure below) by screwing it into the delay box,
  - Tighten the plastic lock nut (25).

11.7.3. Reassembly and Adjustment

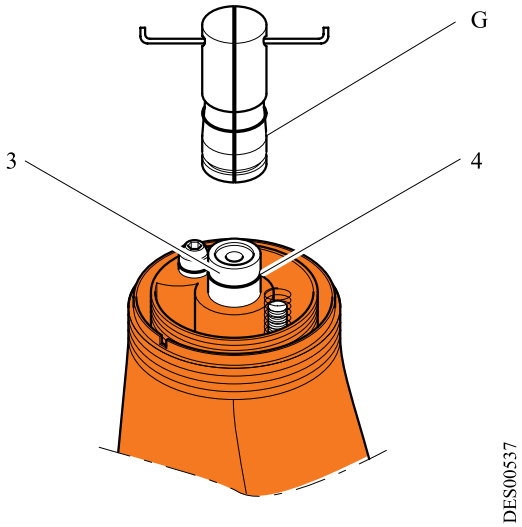
WARNING : Needle is of the parts of first priority whose frequency of replacement under the normal conditions of use is 1 year.

- Apply a thin film of grease (P/N H1GMIN017) on the distributor and its seals and also along the entire length of the needle.
- Position the needle assembly in its housing. Push the needle assembly in the axis of the atomizer, ensuring that the beveled ends of the distributor seals come into contact.
- Tighten the needle assembly by turning the adjustment lever (35) and tighten the nut (36) behind the lever.
- Adjust the paint flow rate setting button (37) (see § 9.1.4 page 17).

11.8. Seal Packing Assembly

11.8.1. Disassembly

- Remove the atomizer air cap, nozzle support and needle assembly (see § 11.1 page 20, see § 11.7 page 26 and see § 11.7 page 26).
- Fit tool (G) (see § 13.10 page 55) on the seal packing assembly (3), ensuring that the assembly O-ring (4) is correctly positioned in its housing on the tool. If tool (G) is not available, use an alligator clip to remove the assembly.
- Pull the tool parallel to the atomizer axis to remove the assembly.



3	Seal packing assembly
4	O-ring

11.8.2. Reassembly

- Remove any trace of glue from the central cavity of the gun. Clean and degrease the bonding surfaces of the new seal packing assembly and the central cavity of the gun using a grease-free solvent, taking care to prevent any solvent from running inside the gun. Dry these areas with compressed air.
- Use LOCTITE DP 460 to glue the seal packing assembly in the central housing of the front part of the gun. Apply the glue to the central cavity of the gun over a length of 12 mm (i.e. down to the inside chamfer).
- Slide the new seal packing assembly into the central cavity by hand until it presses against the chamfer. The O-ring (4) of the seal packing assembly must be placed at the end closest to the front of the atomizer and must remain visible once the new assembly is fitted.
- Remove any excess glue with a rag.
- Leave to dry for approximately 8 hours.

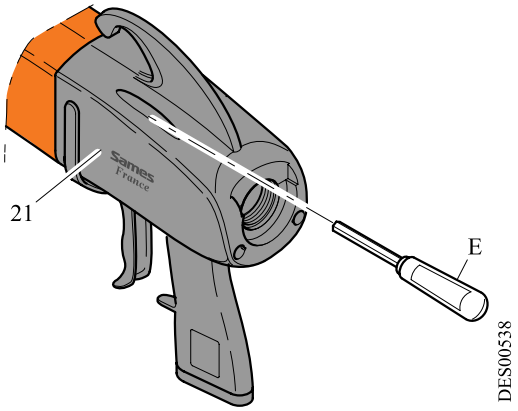
WARNING : This gluing operation must be carried out with great care.

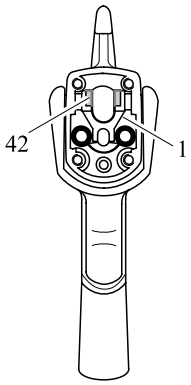
- Refit the nozzle support, needle assembly and atomizer air cap (see § 11.7 page 26 see § 11.7 page 26 and see § 11.1 page 20).
- Press the trigger several times and check that performance is correct.

11.9. Accessing the Inside of MIV 6600 Atomizers

11.9.1. Disassembly

- Remove the atomizer air cap, nozzle support and needle assembly see § 11.1 page 20, see § 11.6 page 24 and see § 11.7 page 26).
- Remove the 4 screws (45) located behind the plugs on the handle using the 3-mm hexagonal wrench (E) (see § 13.10 page 55). Take care not to lose the seals and washers.
- Separate the handle (21) from the gun by exerting a slight force on these two parts.
- Check the condition of the O-ring (9) located at the rear of the gun and providing the seal between the handle and the gun. If necessary, remove it by dislodging it then sliding it along the outer surface of the gun. Remove the seal via the front of the gun (nozzle side). Carefully clean the O-ring housing. Replace the ring if necessary.





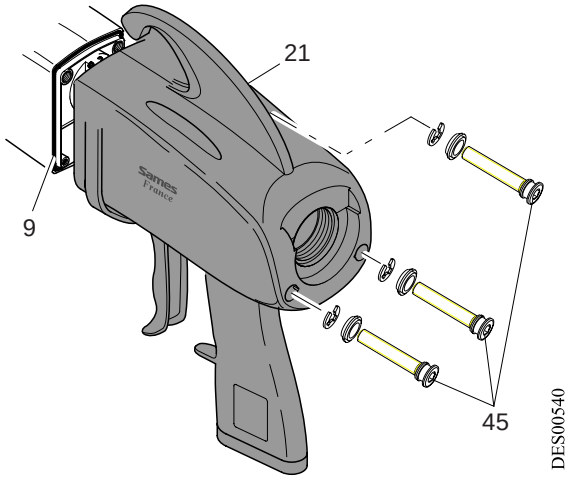
•Checking the fitting and condition of the stirrup guard (42) on top of the stirrup. There must be no signs of damage (cracks, breaks, soiling) on the two parts fitted on the trigger pin. If necessary, replace the stirrup guard or clean it with grease-free solvent.

WARNING : This inspection must be carried out with extreme care as the safety of the equipment depends on it.

- To replace (or disassemble) the stirrup guard (42), proceed as follows:
  - Use a screwdriver to separate one of the two parts of the guard on the top of the trigger pin. The guard is flexible and will bend if it is moved towards the trigger pin.
  - Pull the stirrup guard towards the front of the handle to remove it completely.
  - Fit a new guard, first fitting one of the two parts of the guard on the trigger pin. Note: Make sure the parts are fitted in the right direction as the guard is not symmetrical.
  - Fit the second part of the guard by squeezing it.
  - Push the guard fully into place on the stirrup.
  - Press the trigger and check that the guard remains in place.

11.9.2. Reassembly

9	O-ring - Viton
42	Stirrup guard
45	Special screw with seal and washer



- Fit the gun on the handle (21).
- Tighten the four screws (45) with their seal and their washer :
  - check that the seal is correctly positioned. Do not tighten excessively.

WARNING : For any operation of assembly or cleaning, ensure that the special screws (item 45) location are clean.

- Check that the inside of the atomizer is air-tight: connect a supply of compressed air under 6 bar. If air leakage is detected at the lower screw holes, check that (see § 13.1 page 45):
  - no air leaks from the air seal (30),
  - there is no leakage at seals (31) and (32),
  - there is no leakage at seal (18),
  - there is no leakage at seals (17) and (20),
  - there is no leakage at seal (4),
  - there is no leakage at the special washers (7).

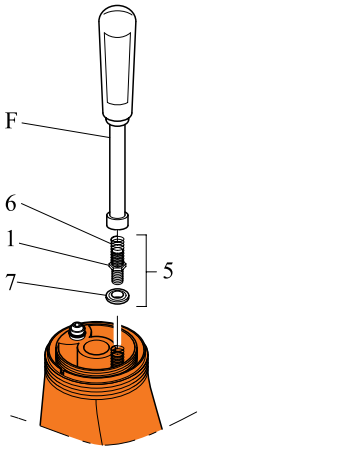
WARNING : This inspection is essential for the safety of the personnel.

- Refit the nozzle support, needle assembly and atomizer air cap, see § 11.6 page 24, see § 11.7 page 26, see § 11.1 page 20.

11.10. High Voltage Unit (only by trained personnel)

11.10.1. Disassembly

- Accessing the inside of the atomizer see § 11.9 page 29.
- Remove the high voltage contact (5) using the socket wrench (F) see § 13.10 page 55. Take care not to lose the sealing washer (7) of the high-voltage contact.
- Turn the gun a quarter turn around its axis so that the electrical connections of the high voltage unit are accessible (15).



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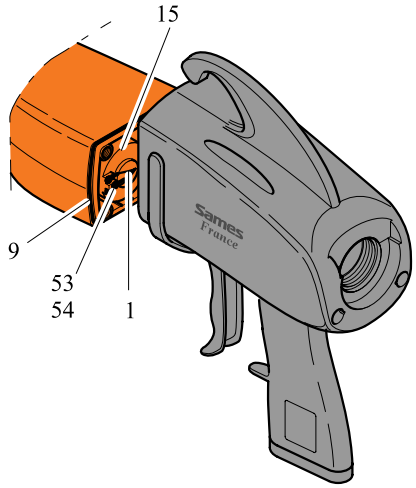


DES00541

5	High voltage contact
6	Spring of the high voltage contact
7	Sealing washer
9	O-ring - Viton
15	High voltage unit
53	Screw, C M 2 x 4, galvanized steel
54	Washer, AZ2, galvanized steel

- Remove the 3 screws (53) connecting the 3 wires (blue, white and red) of the high voltage unit power supply. Remove the 3 lock washers (54) from the screws, then dislodge the terminals from the unit (see § 11.6.2 page 25).
- Thread a 2 mm dia. rod through the hole in the high-voltage contact located at the front of the gun. Push the high-voltage unit out through the rear of the gun (do this gently).

WARNING : Take care not to drop the high voltage unit as it is fragile and could break. A damaged unit is liable to result in equipment damage or malfunction.

- Check that the surface of the high voltage unit is perfectly clean: this is very important. If it is not (traces of paint or solvent), the source of liquids entering the atomizer must be found and remedied before reassembling the atomizer.

- If the unit surface has traces of paint or solvent, they must be removed. Use a cloth soaked in grease-free solvent (aromatic, aliphatic, except for alcohol, polyalcohol and ketone) and rub the surface of the unit.

WARNING : The unit must never be soaked in solvent.

- Dry the surface of the unit immediately using clean, dry compressed air.
- Check that there are no cracks or black marks on the surface of the unit. If necessary, replace it.

11.10.2. Reassembly

- Apply a thin film of grease (P/N H1GMIN017) over the whole surface of the high voltage unit (15).
- Push the unit (15) (gently) all the way home in the upper housing of the gun with the 3 electrical connection terminals facing upwards and towards the rear of the gun.
- Refit the high voltage contact at the front of the gun, after first fitting a new sealing washer (7) on the screw. Ensure that the contact spring at the front of the atomizer is in good condition (not broken or out of shape).

WARNING : It is essential to fit a sealing washer and a high voltage contact fitted with its original spring; the safety of the equipment depends on this.

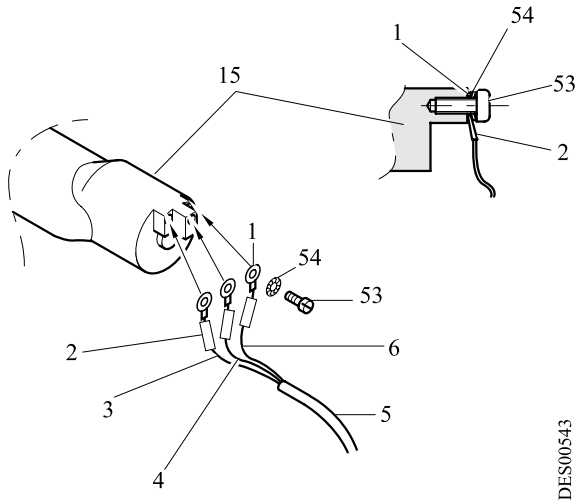
- Connect the 3 wires (blue, white and red) on the pins of the unit (15), taking care to fit 3 new lock washers (54) between the screw heads and the terminals (see following figure).

WARNING : It is essential:

- to fit new lock washers (54),
- to use cable terminations with their terminals, black sheath and original screw (53),
- to angle the three terminals towards the bottom of the unit (15) without folding or twisting them.

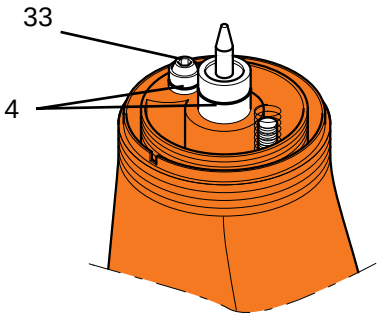
The safety of the equipment depends on this.

- Check that the two seals (17) are fitted on the air ducts of the distributor support in the handle.
- Turn the gun by a quarter turn so that it faces the handle. Refit the gun on the handle (see § 11.9 page 29).



1	Terminal
2	Black sheath, length 10 mm
3	White wire
4	Blue wire
5	Low voltage cable
6	Red wire
15	High voltage unit
42	Stirrup guard
53	Screw, C M 2 x 4, galvanized steel
54	Washer, AZ2, galvanized steel

11.11. O-ring of the Gun Paint Union



DES00545

Note: The union (11) does not have to be removed when replacing the O-ring (4).

11.11.1. Disassembly

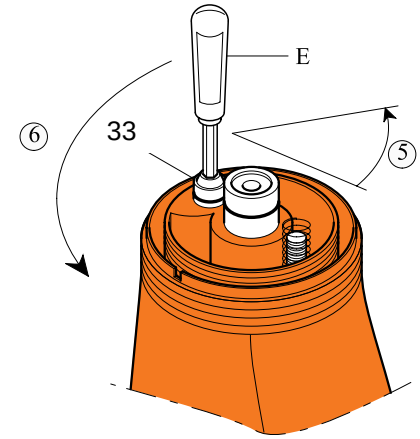
- Disassemble the atomizer air cap and the nozzle support (see § 11.1 page 20 and see § 11.6 page 24).
- Extract the O-ring using a screwdriver (4). Take care not to damage the end part of the paint union during this operation.

11.11.2. Reassembly

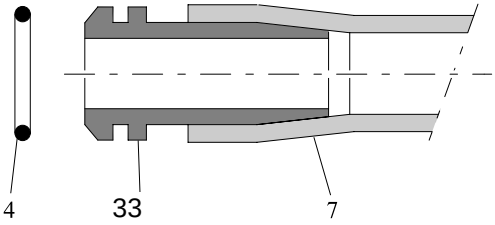
- Fit a new O-ring (4) on the union (11), then tighten the nozzle support nut (see § 11.6.2 page 25) by hand.
- Tighten the nozzle support nut without excessive force, (see § 13.10 page 55) without excessive force. Refit the nozzle if necessary. Do not refit the atomizer air cap.
- Check the seal provided by the O-ring: with the **GNM 100** control module switched off, feed solvent under 6 bar into the atomizer. When the trigger is released, there must be no solvent leakage from the front of the gun, around the nozzle nut.
- Refit the atomizer air cap see § 11.1 page 20.

11.12. Gun Paint Union (only by trained personnel)

11.12.1. Disassembly



DES00546



DES00773

•Remove the O-ring (4) from the paint union of the gun (11) (see § 11.11.1 page 33).
•Insert tool (E) in the paint union (11) via the front of the gun and unscrew the union.
•If necessary, clean the hole through which the union is fitted and the gun thread with a rag soaked in solvent. Dry the surfaces with compressed air.

4	O-ring - solvent resistant
7	Plastic paint hose
11	Paint union (without seal)

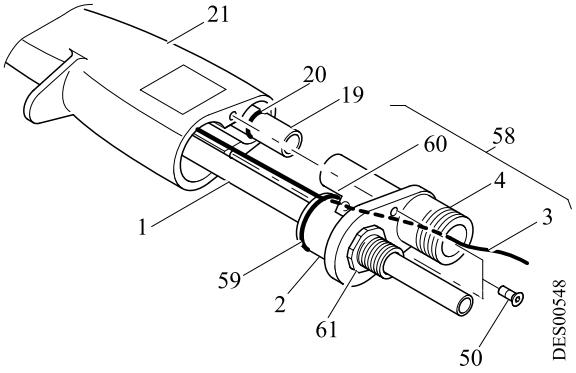
11.12.2. Reassembly

- Carry out the disassembly procedure in reverse. When fitting the union on the gun, do not apply excessive tightening torque. The union must however be securely screwed to the gun using tool (E) (see § 13.10 page 55).

11.13. Separator
(only by trained personnel)

11.13.1. Disassembly

- For .1 version, remove the paint extension, for versions .H1 remove the elastomer air hose see § 11.6.2 page 25.
- Remove the air/low voltage hose from below the handle using tool (I) see § 13.10 page 55.
- Remove the paint union from the handle see § 11.12 page 34.
- Remove the two screws (50) securing the separator (58) to the handle (21), using a 2-mm hexagonal wrench.



19	Air duct
20	O-ring - Viton
50	18-10 stainless steel screw, F/90 Hc M 3 x 10
58	Air/low voltage separator containing parts 50, 59, 60, 61 and the paint and air end pieces
59	O-ring - Viton
60	O-ring - Viton
61	Paint end piece nut

- Pull the separator to dislodge it from the handle until the cable is taught and resistance is felt. Do not exert excessive force during the operation. The air duct (19 - see § 13.1 page 45) located in the housing on the rear side of the handle will be extracted during this operation.
- Check the condition of the seal (59) on the metallic paint end piece of the separator. If necessary, replace it by removing the plastic paint hose from the separator (see § 11.14 page 36).
- The O-ring (20 - see § 13.1 page 45) is fitted in the handle. It is not visible when the separator is removed from the handle.

11.13.2. Reassembly

- Check that seal (20 - see § 13.1 page 45 is in place around the air duct.
- Fit the air duct into the separator and then fit the separator into the handle.
- Tighten the two screws (50) securing the separator below the handle.
- Fit the gun paint union.
  see § 11.12 page 34.

11.14. Replacing the Plastic Paint Hose

WARNING : Refer to the safety instructions provided see § 1 page 6.

11.14.1. Version **MIV 6600.1**

The paint is connected to the ground via the union (70) below the handle, below the separator.

11.14.1.1. Disassembly

Note: It is useful to remove the elastomer paint hose (80) via the swivel fitting (79) before proceeding with disassembly.

- Disassemble the union (70):
  - Use a 17-mm thin flat wrench to hold the nut (75) below the separator, then unscrew the union (70) using a 17 mm flat wrench,
  - If the elastomer hose has not already been removed, turn it during this operation.
- Disassemble the gun paint union see § 11.12 page 34).
- Pull the end of the plastic paint hose (82) extending beyond the separator (A) to remove it from the atomizer.
- If necessary, clean any soiled internal parts of the atomizer (for the unit, see § 11.10 page 31).

11.14.1.2. Reassembly

Use a new hose (82), bending it manually to give it roughly the shape it needs inside the atomizer.

- Thread the hose through the separator.
- Fit the paint union (11) back onto the gun (see § 11.12 page 34).
- Restore the high voltage unit connections(see § 11.10 page 31).
- Refit the gun on the handle (see § 11.9 page 29).
- Pull the plastic paint hose (13) extending from the separator (A) gently by hand and fit it in place inside the atomizer.
- If necessary, use a tube cutter to cut through the paint hose to leave approx. 10 to 12 mm extending beyond the metal end piece of the separator (A).
- Fit a new compression ring (72') on the hose extending beyond the metal end piece. Fit the seal (87) on the sleeve (86) and place the assembly in the paint hose.
- Screw the union (70') manually onto the metal end piece of the separator. Finish tightening the union with a wrench.
- If the elastomer paint hose (80) was removed, refit it by screwing the swivel fitting (79) onto the union (70). To do this, you will need to hold union the (70) steady with the wrench.
- Check that there is no leakage from the connection below the handle by feeding solvent under 6 bar into the atomizer, with the **GNM 100** control module switched off.

11.14.2. Version **MIV 6600.H1**

The paint is set to the ground potential via the union (70) located at the end of the 5-m elastomer hose below the handle of the atomizer.

This union is connected to the ground:

- by the 5-m elastomer hose (77) containing two ground braids (84) embedded in the elastomer,
- and also by the anti-static elastomer hose (80) connected to the paint supply (itself connected to the ground).

11.14.2.1. Disassembly

- Remove the paint union (11) from the gun.
- Remove the paint extension (78').
- Remove the collar (73).
- Extract the elastomer hose (77) from the filter holder (D).
- Pull the filter holder (D) to access the paint tube (83').
- Hold the paint tube (83') at its fitting on the filter holder (D) in abrasive cloth to prevent it from rotating.
- Unscrew the filter holder (D).
- Unscrew the union (85') below the handle and pull the elastomer tube to remove it completely from the paint tube (83').
- Remove the tube (83') from the gun.

11.14.2.2. Assembly

- Fit a new compression ring (72') on a new paint tube (83').
- Pre-shape the paint tube to fit in the gun, using the elbow shape of the old disassembled tube as a guide.
- Slide the end of the pre-shaped paint tube into the separator (A).
- Push the tube until it reaches the end of the gun.
- Tighten the paint union (11), holding the paint tube in an abrasive cloth to keep it firmly in place at the end of the gun, below the handle. During this operation, check that the paint tube does not move back when the union (11) is tightened. Screw the paint union (11) firmly home with the hexagonal wrench (E) provided, having first fitted a 80-mm long piece of dia. 4 x 6 mm tube (Rilsan for example) over the hexagon of the screwdriver. This dia. 4 x 6 mm tube ensures that the exact length of hexagon required for screwing is inserted in the union (11), and provides a mechanical stop.
- Position the compression ring (72') on the metal end piece of the separator (A).
- Slide the elastomer hose (77) over the entire length of the paint tube (83').
- Screw the union (85') on the metal end piece of the separator (A), so that the compression ring (72') is tightly squeezed.
- Adjust the length of paint tube (83') extending beyond the end of the elastomer hose (77) to 20 mm.
- Hold the paint tube and push the elastomer tube 50 mm back towards the handle.
- Screw the threaded part of the union (D) into the paint tube.
- Fit the elastomer hose (77) in the union, taking care to place one of the ground braids of the hose between the hose and the union (D), and the other braid on the hose surface.
- Fit the collar (73) on the elastomer hose (77) in contact with the ground braid.

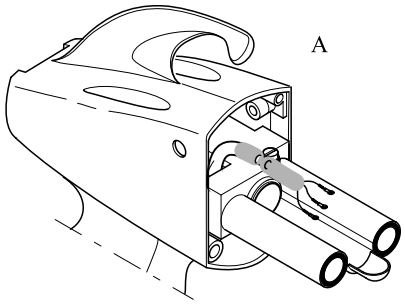
11.15. Distributor Support (only by trained personnel)

11.15.1. Disassembly

- Disassemble the separator (see § 11.13 page 35).
- Remove the air duct (19) located in the housing at the rear end of the handle. Use round-nose pliers for this operation. Pull the duct with the pliers.
- Check the condition of the seal (20) on the duct. Replace it if necessary.
- Lift the trigger of the gun to clear the passage to the distributor support (towards the front of the handle). Pass the paint hose below the trigger fork (see figure below).
- Pull the distributor support (16) fitted in the handle.
- When the cable fastener on the distributor support is accessible, remove screw (62) (see § 13.1 page 45) and its lock washer (63) (see § 13.1 page 45).
- Remove the distributor support (16) completely from the handle.
- Check the condition of the rear seal (18) of the distributor support. Replace it if necessary (see figure below).

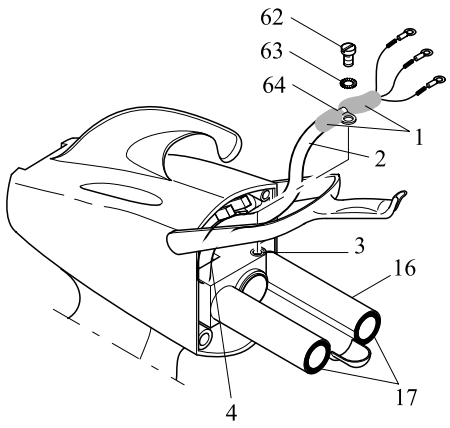
11.15.2. Reassembly

- Fit the distributor support (16) in the two notches in the handle. The two air supply hoses of the distributor support (16) with their seals must be positioned on the gun side.
- Secure the cable on the attach tab of the distributor support (64 - see § 13.1 page 45). Use a new special lock washer (63 - see § 13.1 page 45) on the attach tab and below the screw head (62 - see § 13.1 page 45). The screw is screwed into a metal insert on the distributor support. Position the attach tab so that the cable is aligned with the axis of the gun and as close to this axis as possible (see figure below).



DES00550

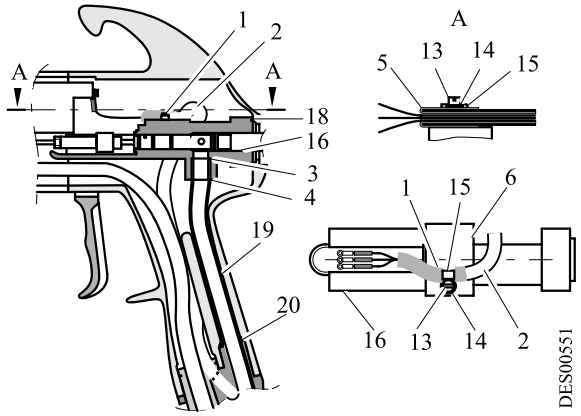
A	View of fitted distributor support without the trigger
16	Distributor support fitted with seals (17) and (18)
17	O-ring - PC851
18	O-ring - Viton
19	Air duct
20	O-ring 9.52 / 1.78 - Viton
62	Brass slotted screw, C M 3 x 5
63	Dished spring washer, dia. 3, galvanized steel
64	Attach tab



DES00549

•Ensure that the attach tab is secured tightly against the cable shield.
•Insert the distributor support into the handle, without pushing it home. Check that the cable can run freely through the handle.

WARNING : These operations must be carried out with the greatest care. The safety of the equipment depends on them.



1	Shield pinching
2	Cable
3	Permanently fitted O-ring
4	Housing
5	Shield
6	Shoulder of distributor support
13	Screw
14	Washer
15	Attach tab
18	O-ring - Viton
19	Air duct
20	O-ring - Viton

- Insert the distributor support (16) until mechanical resistance is felt. Then pull it forward approximately 1 cm.
- Fit the new air duct (19) from below the handle (rear housing). Insert the duct in the distributor support until it is stopped. Once in place, it must enter the distributor support housing. An O-ring permanently fitted to the distributor support provides an air seal. At the end of this operation, the air duct must arrive level with the bottom of the handle. If this is not the case, the air duct is incorrectly fitted and the operation must be repeated.

WARNING : This operation must be carried out with the greatest care.

- Insert the distributor support fully into the handle.
- Lower the trigger and pass the paint hose through the stirrup fork.
- Refit the separator (see § 11.13 page 35) remembering to fit the seal (20).
- Check that the two O-rings (17) are present and in good condition.
- Check that the inside of the gun is airtight:
  - After reassembling the gun, loosen by two turns one of the four screws (45, see § 11.6.2 page 25) securing the handle to the gun,
  - Connect an air supply under approx. 4 bar to the gun, with the control module switched off,
  - Place a few drops of soapy water in the housing of the screw that was removed (in the handle),
  - No bubbles must form in the soapy water. If bubbles do form:
  - Check the air duct (19), and the condition of seal (20),
  - Check the condition of the distributor rings (31) and (32) (see § 11.7 page 26),
  - Check that the distributor packing nut (29) (see § 11.7 page 26) is tight,
  - Check the condition of the two seals of the distributor support (17),
  - Check the condition of the rear seal of the distributor support (18).
  - If no leak is detected, retighten the screw.

WARNING : This operation must be carried out with the greatest care.

11.16. Elastomer Paint Hose

11.16.1. Version **MIV 6600.1**

The paint hose (78') is connected to a swivel fitting at the base of the handle. Another swivel fitting connects it to the paint supply system (pump or tank).

- Using 17- and 19-mm flat wrenches, remove the two swivel fittings (79) located on the paint supply and below the handle of the gun.
- Fit a new hose + union assembly (78').
- Check the sealing of the unions by connecting a supply of solvent to the gun (under 6 bar), with the **GNM 100** control module switched off.

The elastomer paint hose is available in 9, 15 or 20 m lengths (see § 5.3 page 12).

11.16.2. Version **MIV 6600.H1**

In this version, the paint line comprises:

- 5 m of insulated paint hose in which the tube is in a single length and runs from the gun paint union to the swivel fitting at the end of the 5-m hose,
- A non-insulated extension hose, in lengths of 4, 9 or 15 m, connected by a swivel fitting to the 5-m hose and the paint supply.

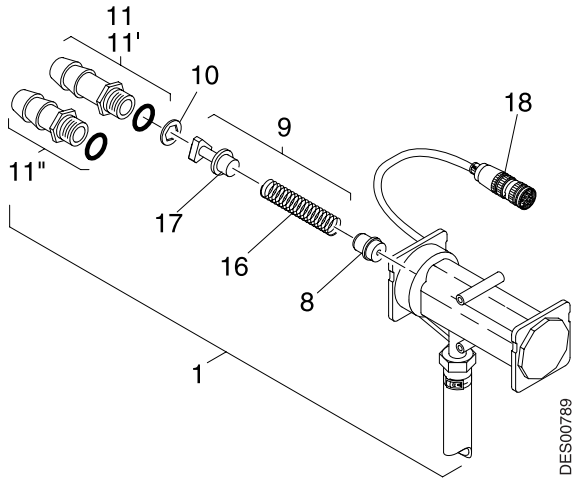
To replace the elastomer hose protecting the paint hose, proceed as follows:

- Remove the collar (73) from the union (71).
- Remove the union from the elastomer hose (77).
- Push the elastomer hose (77) back towards the handle to reveal the inner plastic tube (83').
- Hold the plastic paint tube (83') steady in an abrasive cloth and unscrew the union (D).
- Remove the collar (73) on the union (85') located below the handle.
- Remove the elastomer hose (77) and separate it from the union (85').
- Remove the hose (77) from the plastic paint tube (83').
- Adjust the length of the new hose (77) to the length of the old hose plus 30 mm.
- Expose the ground braids embedded in the wall of the new hose, stripping them and twisting them at a distance of 15 mm from the two ends of the hose (77).
- Fit the hose (77) over the plastic paint tube (83'), as far as the handle. Do not forget the place the small collar (76) below the union (85') before sliding the hose (77).
- Fit the hose (77) in the union (85'). One of the ground braids must be in contact with the union outside the hose, the other must be in contact below the small collar (73) and on the outer surface of the hose.
- Fit a collar (73) on the hose, gripping the braid and the hose onto the union (85').
- At the other end, hold the paint tube (83') and push the elastomer hose 50 mm back towards the handle.
- Hold the other end with an abrasive cloth to keep it clear of the paint tube.
- Screw the union (D) into the paint tube.
- Position a ground braid from the elastomer hose inside the hose, so that it establishes an electrical contact with the filter holder (D). The other ground braid must be positioned outside the elastomer hose.
- Fit the union (D) in the elastomer hose (77).
- Fit the collar (73) over the ground braid.
- Reconnect the paint extension (78') to the union (E).
- Check the sealing of the various unions using solvent under 6 bar (90 psi), with the **GNM 100** generator switched off.

11.17. Maintenance of the air flow switch

- Remove the grooved union (11), (11') or (11'') using a 21-mm flat wrench.
- Remove the stop (10) using an 8-mm hexagonal wrench.
- Pull the piston (17) - spring (16) - damper (8) assembly.
- Check the condition of the piston, spring and damper, replacing them if necessary.

Note: There is no need to lubricate or grease the piston for it to operate.



1	Air flow switch assembly
8	Damper
9	Spring assembly
10	Stop
11	3/8" BSP grooved union with seal for hose of 12 mm internal diameter. 12 mm
11'	3/8" BSP grooved union with seal for hose of 12 mm internal diameter. 8 mm
11"	3/8" BSP grooved union with seal

11.17.1. Disassembly

- Remove the connector (18) from the rear of the **GNM 100** (see **GNM 100** - User Manual see RT Nr 6209).
- Disconnect the air hose (see § 11.16 page 40).

11.17.2. Reassembly

- Fit the damper (8) at the bottom of the piston housing. The elastomer section must be pointed towards the air inlet.
- Fit the piston (17) and spring (16) assembly. The spring is fitted centrally on the piston and held in place by a ridge with the same diameter. When fitting the piston, the conical section must be pointed towards the air inlet.
- Screw the stop (10) fully home, tightening it slightly. Check that the piston moves easily when it is actuated by a rod passed through the stop (10).
- Refit the air inlet union (11), (11') or (11'') fitted with its seal.
- Remove the air flow switch (18) from the rear of the **GNM 100** (see **GNM 100** - User Manual) see RT Nr 6209. Check the electrical operation of the air flow switch:
  - Switch off the paint supply;
  - Supply air to the gun (under 2 bar minimum);
  - Start up the **GNM 100** module with a high voltage setpoint of 0 kV;
  - Actuate the gun trigger: the "high voltage on" lamp of the control module see RT Nr 6209 should light up after a delay of 0.5 seconds maximum (from the time the trigger is pressed);
  - Release the trigger: the lamp should extinguish after a delay of 0.5 seconds maximum;
  - There must be no air leakage on the air flow switch.

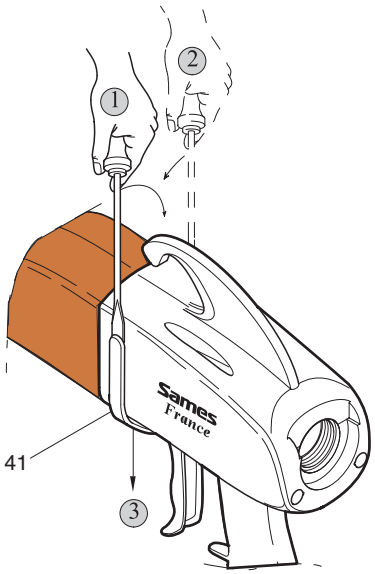
11.18. Trigger

11.18.1. Disassembly

- Slide a wide blade screwdriver below one of the two hinges (keeping it in contact with the handle), and lever it against the trigger in order to dislodge the hinge (see steps 1 and 2 in the figure below).
- Pull the trigger towards the base of the gun to remove it completely (see step 3).

11.18.2. Reassembly

- Carry out the operations in reverse order, ensuring that the two 6-sided inserts of the trigger are securely fitted on the hexagonal rods of the handle.



DES00556

Note: The disassembly of the hexagonal rods and the trigger stirrup inside the handle require a special tool. If necessary, replace the assembly comprising the handle, the rods fitted with their bearing and seals and the trigger stirrup (assembled parts) see § 13.2 page 47.

41	2-finger trigger
41'	4-finger trigger

11.19. Handle and Trigger Assembly (only by trained personnel)

11.19.1. Disassembly

- Disassemble the trigger see § 11.18 page 42.
- Remove the gun paint union.
- Remove the distributor support (see § 11.15 page 38).
- Pull the separator to remove the plastic paint hose from the handle.

11.19.2. Reassembly

Note: It is advisable to replace the plastic paint hose at the same time.
see § 11.14 page 36.

- Carry out the disassembly procedure in reverse.

11.20. Gun and Seal Packing Assembly (only by trained personnel)

11.20.1. Disassembly

- Remove the paint union from the handle (see § 11.12 page 34).
- Remove the high voltage unit (see § 11.10 page 31) and check its condition.

11.20.2. Reassembly

- Carry out the disassembly procedure in reverse.

12. Troubleshooting Guide

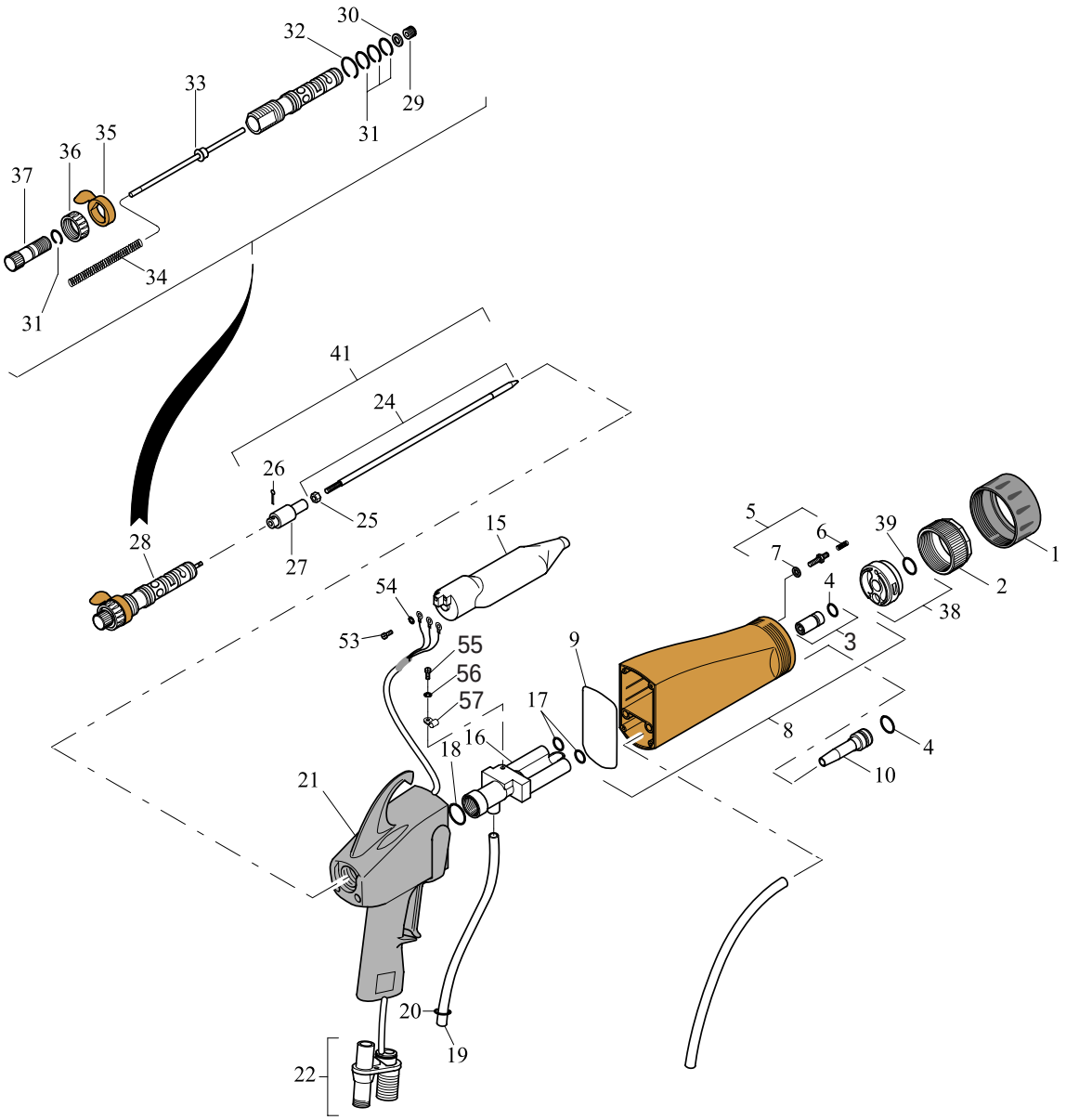
Symptoms	Possible causes	Corrective action
The paint flow to the gun nozzle is very slow or has stopped completely.	Insufficient air pressure in the pressure tank or the diaphragm pump. Increase the air pressure.	Increase the air pressure.
	Leak under pressure tank lid.	Secure the lid more tightly. Replace the lid seal if necessary.
	Paint viscosity too high.	Reduce viscosity by adding some paint thinner.
	Injector clogged.	Close the paint supply to the gun. Remove the air cap. Remove the nozzle and clean it using a fine brush and solvent. If necessary, remove and clean the diffuser (for round spray version)
	Diaphragm pump clogged.	Flush the supply air from the pump and reprime the pump.
	Paint tank filter or diaphragm pump clogged (.H1 version).	Clean it with solvent.
	Needle assembly wrong length.	Check settings see § 9.1.4 page 17 and see § 11.7 page 26.
	Paint hose clogged.	Check the paint hose.
Paint comes out in spurts.	Paint flow too low.	Increase the flow by adjusting the air pressure in the pressure tank or diaphragm pump.
	Air in the paint supply hose.	Flush the hose by pressing the trigger.
	Paint low in pressure tank or container.	Refill.
Paint flows out continuously.	The needle is obstructed and cannot close.	Remove the nozzle support. Clean the nozzle and the tip of the needle see § 11.6 page 24.
	Needle damaged.	Replace the needle and, if necessary, the nozzle support.
	Nozzle support damaged.	Replace it.
	Needle wrong length.	Check settings (see § 9.1.4 page 17 and see § 11.7 page 26).
The air cap becomes soiled very quickly.	Paint not suitable.	Check paint characteristics: resistivity and viscosity (see § 5 page 11).
	Incorrect air/paint setting.	Re-adjust (see § 9.1.5 page 18).
	Paint has clogged the air outlet holes in the air cap.	Remove the cap and clean the end of the gun with solvent using a fine brush.
Air leak at the rear of the handle.	Internal air leak.	Carry out the necessary checks (see § 11.6.2 page 25).

Symptoms	Possible causes	Corrective action
Poor atomization and pattern.	Air leaks between the atomizing air chamber and the fan air (or vortex air) chamber.	Unclog the holes in the fan spray cap using solvent and compressed air. Clean the nozzle. Retighten the air cap nut.
There is no high voltage at the gun (1) and the control module is operating normally.	The **GNM 100** is incorrectly set.	Check the settings of the **GNM 100** (refer to the **GNM 100** see RT Nr 6209).
	Check the operation of the air flow switch.	see § 11.17 page 41.
	Paint resistivity too low.	Check paint resistivity (see § 5.1 page 11 and see § 8.2 page 15).
	Atomizing air too damp.	Drain and dry the air circuit.
No electrostatic wrap-around effect.	Atomizing air pressure too high.	Reduce the pressure.
	Paint resistivity too high.	Check paint resistivity (see § 5.1 page 11 and see § 8.2 page 15).

WARNING : The voltage normally only appears at the end of the gun if the trigger is actuated: the atomizing air must leave the cap in order to start up the controller.

13. Spare Parts

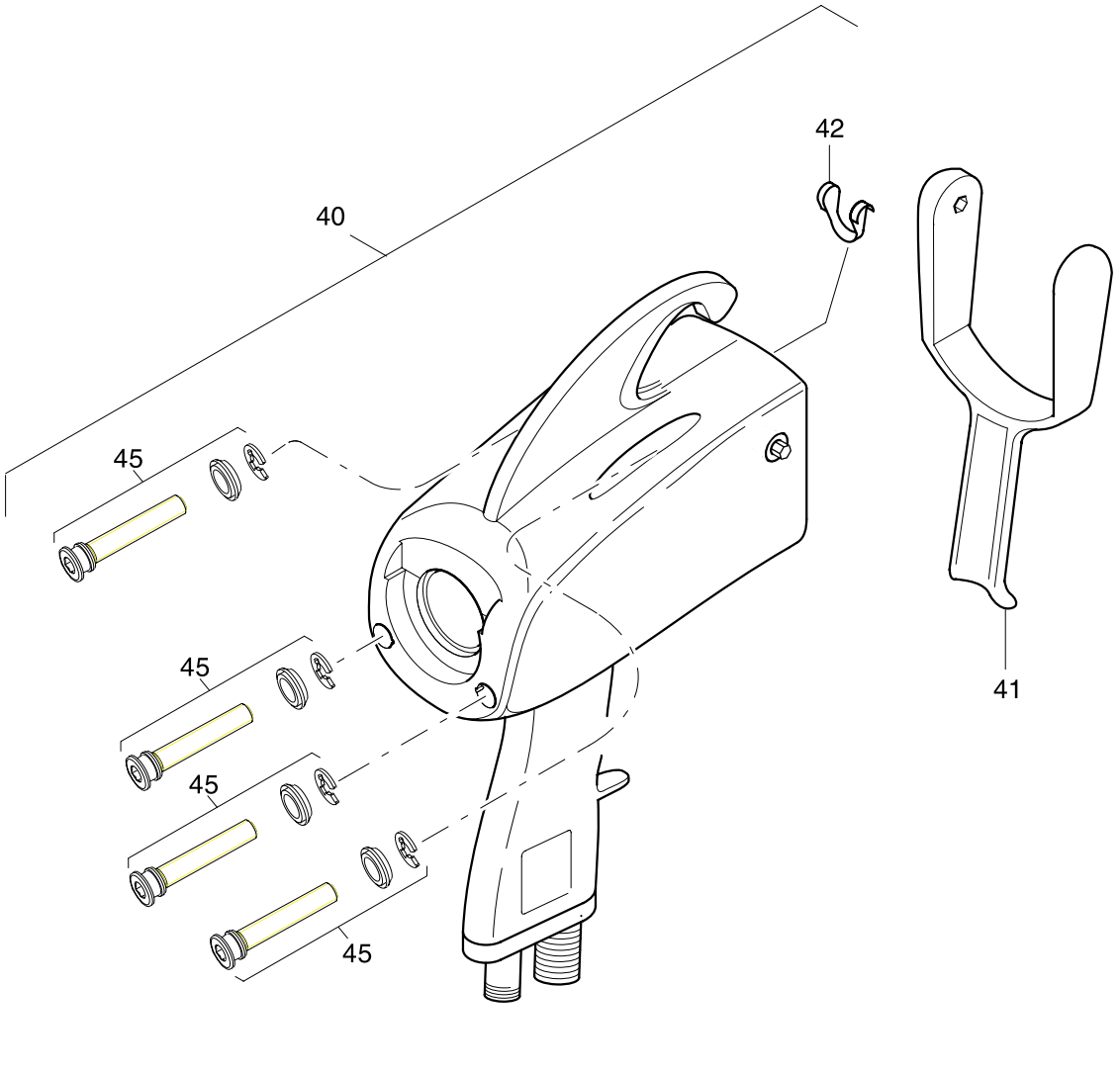
13.1. MIV 6600 Atomizer



Item	Part number	Description	Qty	Unit of sale
1	548007	Fan Air cap nut	1	1
	1404770	Super vortex round air cap nut	Option	1
2	739302	Nozzle nut	1	1
3	745529	Seal packing assemblies (with O-ring (4)	1	1
4	J3STKL005	O-ring - solvent resistant	2	1
5	1407354	Complete high-voltage contact	1	1
6	640113	Spring	1	10
7	J2CRAN031	Sealing washer	1	1
8	1515290	Gun assembly, round spray and fan spray versions	1	1
9	J2FTDF472	O-ring - Viton	1	1
10	1402720	Gun paint union	1	1
15	1508783	High voltage unit	1	1
16	737619	Distributor support fitted with seals (17) and (18)	1	1
17	J2CTCN436	O-ring - EPDM	1	10
18	J2FTDF248	O-ring - Viton	2	1
19	1407356	Air duct	1	1
20	J2FTDF121	O-ring - Viton	1	1
21	see § 13.2 page 47	Handle assembly	1	1
22	1302958	Air / low voltage separator assembly	1	1
24	1515326	Needle + nylon nut	1	1
25	900008732	Nut, H M 3	1	1
26	X4CGFN001	Pin	1	1
27	744642	Delay box	1	1
28	1308863	Round spray distributor assembly	1	1
	1308862	Conventional fan spray distributor	1	1
29	313881	Packing nut	1	5
30	313882	Air seal	1	5
31	313886	Small ring	4	6
32	313887	Large ring	1	2
33	744237**	Air needle	1	1
34	744000	Needle spring	1	2
35	1407184	Air adjustment lever	1	1
36	548024	Distributor nut	1	1
37	549983	Lever nut	1	1
38	1406307**	Nozzle support	1	1
39	J2FENV094	O-ring - FEP	1	1
41	1407355	Needle assembly	1	1
53	X2BVCB022	Screw, C M 4 x 2, galvanized steel	4	1
54	X2BDVX002	Washer, AZ 2, galvanized steel	4	1
-	-	Air and paint hoses (see § 13.6 page 51)	-	-
55	X7CVCB065	Brass slotted screw, CM 3 x 5	1	1
56	X3DDSP026	Dished spring washer, dia 3, galvanized steel	1	1
57	641554	Attach tab	1	1

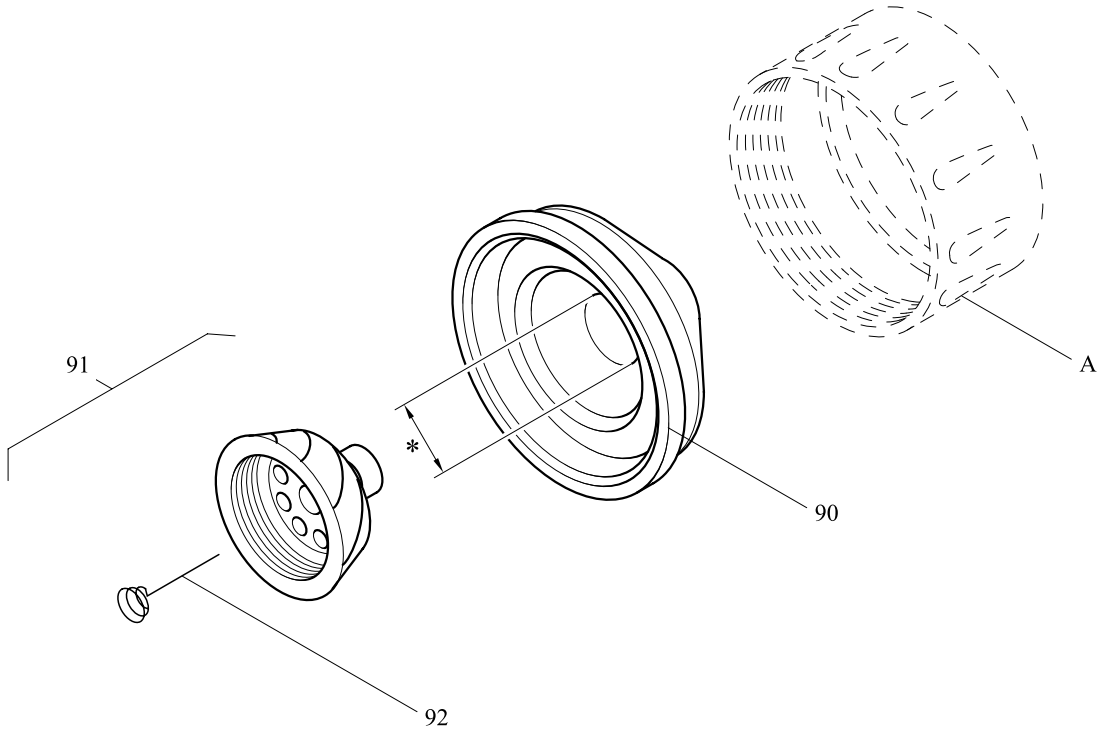
Note: Nozzle support and air needle are of the parts of first priority whose frequency of replacement under the normal conditions of use is 1 year.**

13.2. Handle Assembly



Item	Part number	Description	Qty	Unit of sale
40	1515098	Handle assembly with 2-finger trigger	1	1
41	737257	2-finger trigger	1	1
42	643252	Stirrup guard	1	1
45	1411142	Special screw with seal and washer (set of 4)	4	1

13.3. Round Spray Nozzles and Air Caps (Option)



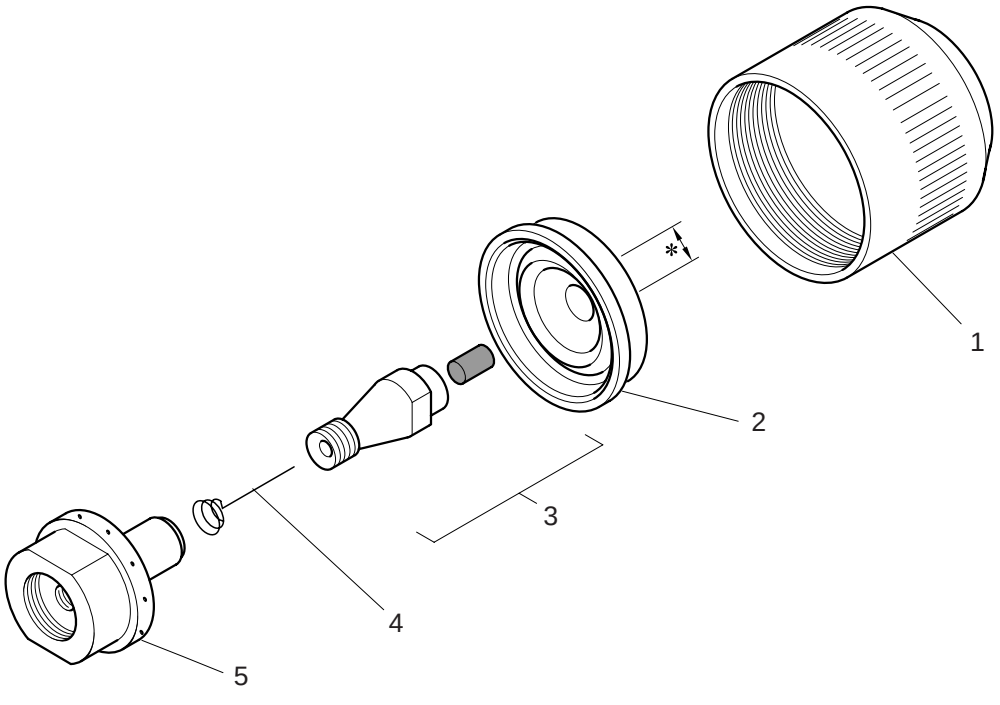
DES00568

Item	Part number	Description	Qty	Unit of sale
A	548007	Round spray air cap nut	1	1
90	1407431	Round air cap, caliber 6	1	1
	1406310	Round air cap, caliber 8	1	1
	1406507	Round air cap, caliber 12	1	1
91	1407430	Round spray nozzle, caliber 6 (with diffuser)	1	4
	1406309	Round spray nozzle, caliber 8 (with diffuser)	1	4
	1406506	Round spray nozzle, caliber 12 (with diffuser)	1	4
92	446028	High voltage electrode spring	1	5

*** The caliber is the approximate diameter in mm of the end section of the nozzle and the central hole of the air cap.**

WARNING : Nozzles and Air caps (round spray, fan spray and electostatic HVLP) are of the parts of first urgency whose frequency of replacement under the normal conditions of use is three to six months.

13.4. Super vortex sound Spray Nozzles and Air Caps (Option)

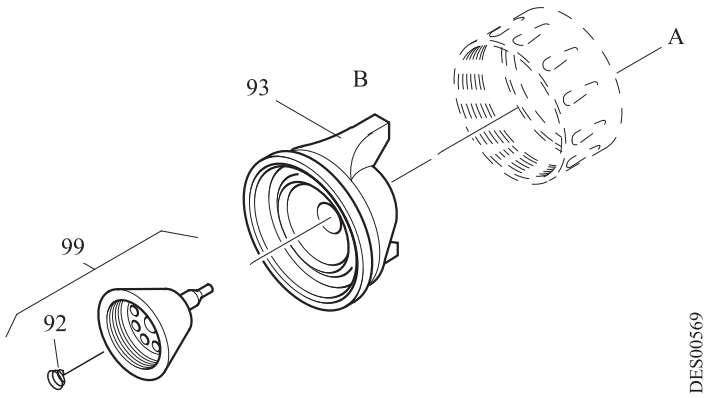


Item	Part number	Description	Qty	Unit of sale
1	1404770	Super vortex round air cap nut	1	1
2	430804	Super vortex round spray air cap, caliber 6	Option	1
	430540	Super vortex round spray air cap, caliber 8	1	1
	430179	Super vortex round spray air cap, caliber 12	Option	1
	430719	Super vortex round spray air cap, caliber 20	Option	1
3	455234	Injector cal. 6	Option	5
	455235	Injector cal. 8	1	5
	455236	Injector cal. 12	Option	5
	455237	Injector cal. 20	Option	5
4	448110	Electrode	1	10
5	1305211	Super vortex round spray nozzle	1	1

*** The caliber is the approximate diameter in mm of the end section of the nozzle and the central hole of the air cap.**

WARNING : Nozzles and Air caps (round spray, fan spray) are of the parts of first priority whose frequency of replacement under the normal conditions of use is three to six months.

13.5. Fan Spray Nozzles and Caps



Parts common to all models

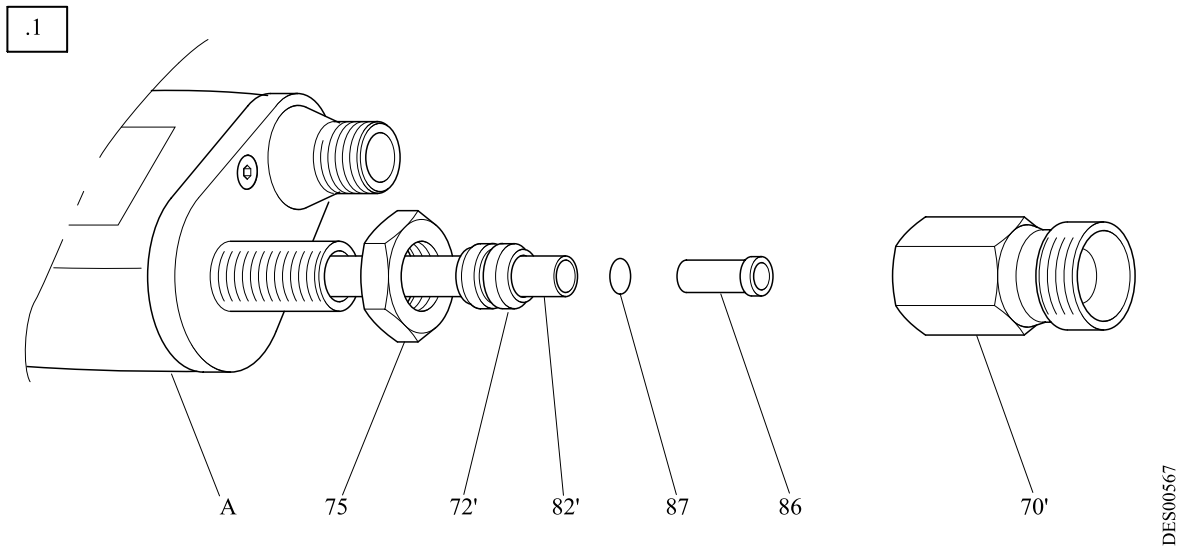
Item	Part number	Description	Qty	Sale unit
A	548007	Air cap nut	1	1
92	446028	Electrode spring	1	5

Specific parts, conventional model - (B)

Item	Part number	Description	Qty	Sale unit
93	737549	Standard cap, conventional fan spray	1	1
	1313814	Cap, white fan spray	option	1
	1313813	Cap, orange fan spray	option	1
	737550	Cap, conventional fan spray	option	1
	1314353	Cap, white fan spray	option	1
	1314354	Cap, orange fan spray	option	1
	737552	Cap, conventional fan spray	option	1
	1314355	Cap, white fan spray	option	1
	1314356	Cap, orange fan spray	option	1
99	1406402	Nozzle, conventional fan spray, automobile finish (with 92)	1	1

WARNING : Nozzles and Air caps (round and fan spray) are of the parts of first priority whose frequency of replacement under the normal conditions of use is 3 to 6 months.

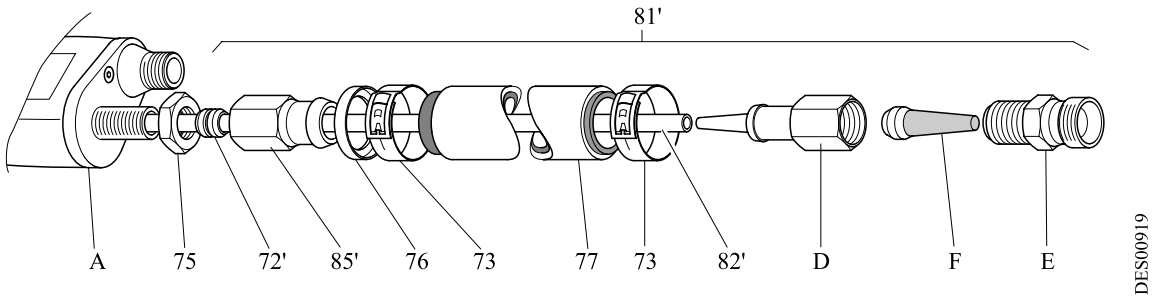
13.6. Paint Hoses for Version .1



Item	Part number	Description	Qty	Unit of sale
75	549411	Nut	1	1
72'	1402402	Compression ring	1	1
82'	U1GCBR084	Plastic hose, dia. 5/9 mm	0.5 m	m
87	J2FTCF008	O-ring - Viton	1	2
86	1403257	Sleeve	1	1
70'	1403260	Union, M 14 x 150 - 3/8" NPSM	1	1

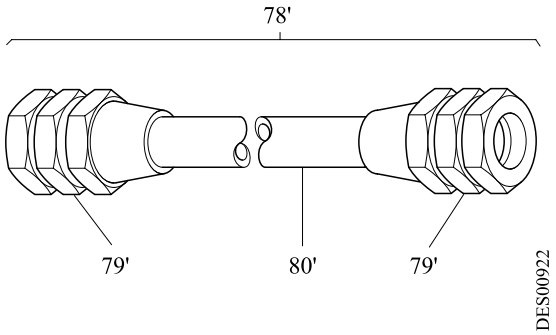
13.7. Paint Hoses for Version .H1

.H1



Item	Part number	Description	Qty	Unit of sale
81'	1506767	Paint hose, length 5.2 m, insulated (for .H1 version only) dia. 5/9 mm with filter	1	1
75	549411	Nut	1	1
72'	1402402	Compression ring	2	1
85'	1403255	Barbed union, M 14 female	1	1
76	1400034	Small collar	1	1
73	X4ECCV120	Collar	2	1
77	J2CTTL162	Elastomer hose with ground braid	5.2 m	m
82'	U1GCBR084	Plastic hose, dia. 5/9 mm	5.5 m	m
D	1303490	Filter support	1	1
F	126770	Filter	1	5
E	744247	Union, 3/8" NPSM	1	1

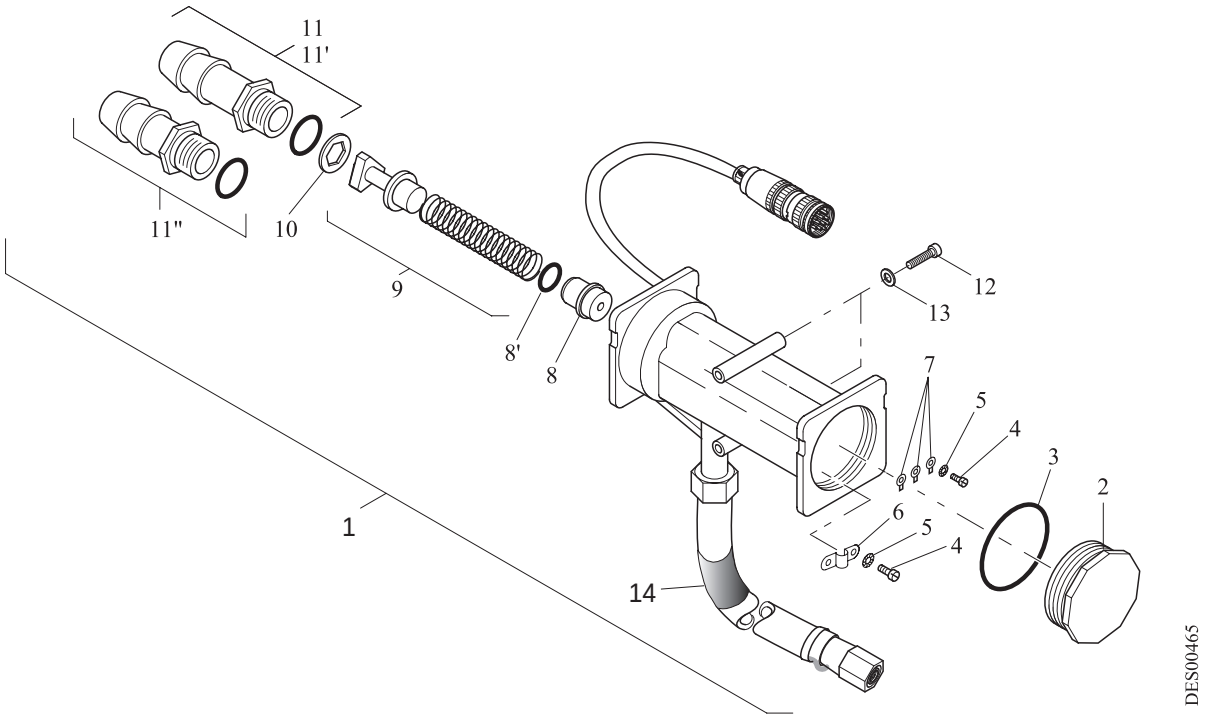
13.8. Complete Paint Hoses



Item	Part number	Description	Qty	Unit of sale
78'	1506732	Hose, length 4 m, (black and red) (.H1 versions) with unions	1	1
	1506733	Hose, length 9 m, (black and red) (.H1 and .1 versions) with unions	1	1
	1506734	Hose, length 15 m, (black and red) (.H1 and .1 versions) with unions	Option	1
	1506736	Hose, length 20 m, (black and red) (.1 versions) with unions	Option	1
79'	F6RLKS284	Swivel fitting, 3/8" NPS	2	1
80'	J2CTTL198	Hose for polar and non-polar solvents (black and red)	-	m

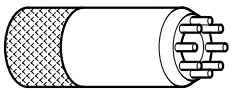
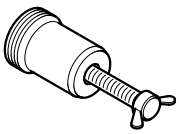
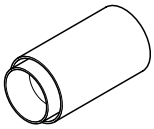
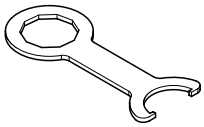
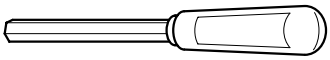
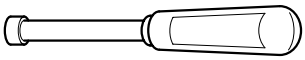
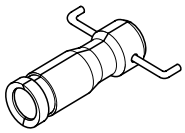
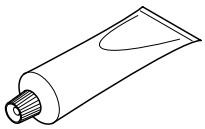
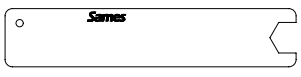
WARNING : In the case of use of a specific solvent, contact Sames.

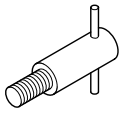
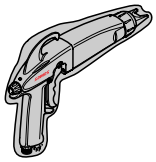
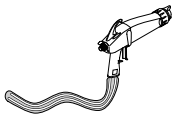
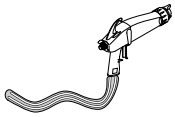
13.9. Air flow switch



Item	Part number	Description	Qty	Unit of sale
1	1308416	Air flow switch fitted with 9-m hose	1	1
1’	1308417	Air flow switch fitted with 15-m hose	Option	1
1"	1308418	Air flow switch fitted with 20-m hose	Option	1
2	1402842	Air flow switch plug	1	1
3	J2CTPB305	O-ring - EPDM	1	1
4	X2BVCB023	Screw, C M 2 x 5, galvanized steel	5	1
5	X2BDVX002	Lock washer, AZ 2, galvanized steel	5	1
6	641093	Fastening strip	1	1
7	E4CSSP096	Terminal	3	10
8	742723	Damper	1	1
8’	J2CNRD129	Washer	1	1
9	446698	Spring assembly	1	1
10	742456	Stop	1	1
11	F6RLQP292	Grooved union, 3/8" BSP + O-ring for air hose, int. dia. 12 mm	1	1
11'	F6RLQP294	Grooved union, 3/8" BSP + O-ring for air hose, int. dia. 8 mm	1	1
11"	1505717	Grooved union 1/4" NPS with O-ring	1	1
12	X3AVSY128	Screw, CHc M 4 x 45	1	1
13	X2BDMU004	Washer, M 4	1	1
14	1406952	Union for hose 8/15, Air flow switch	1	1

13.10. Tools and Accessories

Reference in manual	P/N		Purpose
A	643156	 DES00557	Tool for: - Fitting/removing the nozzle
B	1402015	 DES00558	Diffuser removal tool Round spray.
C	444239 003008 003009 003010	 DES00559	Diffuser placing tool, Round spray, dia. 6, 8, 12 and 20.
D	739837	 DES00560	Wrench for fitting/removing nozzle support nut and nozzle support.
E	W6CVTC052	 DES00563	Hexagonal wrench, 3 mm.
F	W6CVTB058	 DES00561	Socket wrench for fitting/removing the high voltage contact.
G	745560	 DES00562	Ring extractor. **Option**
H	H1GMIN017	 DES00685	Tube of dielectric grease.
I	1306985	 DES00791	Fitting/removal tool for the air /low voltage hose.

Reference in manual	P/N		Purpose
J	1407684	 DES00790	Warning notice.
K	744055	 DES01262	Fitting/removal tool for round spray injectors, wood finish, and associated vortex nozzle **Option**
L	1405914	 DES00592	Plastic hose tapping tool. **Option**
M	1202466	 DES01269	Gun cover **Option**
N	B5SHPL052	 DES03781	Protective sheath for air and paint hoses (on request), length: 8 m
O	100000041	 DES03781	Protective sheath for air and paint hoses (on request), length: 10 m

14. Possible Configurations

14.1. Engraving 1202660

Type	**Hose insulation Paint**		**.H1**	X	X	X	X	X	X	X	X	X	X	X
			.1	-	-	-	-	-	-	-	-	-	-	-
	Atomizing equipment	**RS**	**6 mm**	X	X	X	-	-	-	-	-	-	-	-
			8 mm	-	-	-	X	X	X	-	-	-	-	-
			12 mm	-	-	-	-	-	-	X	X	X	-	-
		Fan spray		-	-	-	-	-	-	-	-	-	X	X
Hose length			**9 m**	X	-	-	X	-	-	X	-	-	X	-
			15 m	-	X	-	-	X	-	-	X	-	-	X
			20 m	-	-	X	-	-	X	-	-	X	-	-
GNM 100 (858075)				X	X	X	X	X	X	X	X	X	X	X

14.2. Engraving 1202658

Type	**Paint hose insulation**		**.H1**	-	-	-	-	-	-	-	-	-	-	-
			.1	X	X	X	X	X	X	X	X	X	X	X
	Atomizing equipment	**RS**	**6 mm**	X	X	X	-	-	-	-	-	-	-	-
			8 mm	-	-	-	X	X	X	-	-	-	-	-
			12 mm	-	-	-	-	-	-	X	X	X	-	-
		Fan spray		-	-	-	-	-	-	-	-	-	X	X
Hose length			**9 m**	X	-	-	X	-	-	X	-	-	X	-
			15 m	-	X	-	-	X	-	-	X	-	-	X
			20 m	-	-	X	-	-	X	-	-	X	-	-
GNM 100 (858075)				X	X	X	X	X	X	X	X	X	X	X