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SAMES  **KREMLIN**



User manual

Mach-Cup

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Mach-Cup

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1. Safety Regulations



WARNING : This document contains links to the following user manual:

- [see RT Nr 6336](#) for the “Mach-Jet” spray gun and “CRN 457” control module.

Note: This tank is designed to operate in zones classified as ATEX 21 if used with a “Mach-Jet” spray gun. This device may be dangerous if it is not used in compliance with the safety regulations specified in this manual.



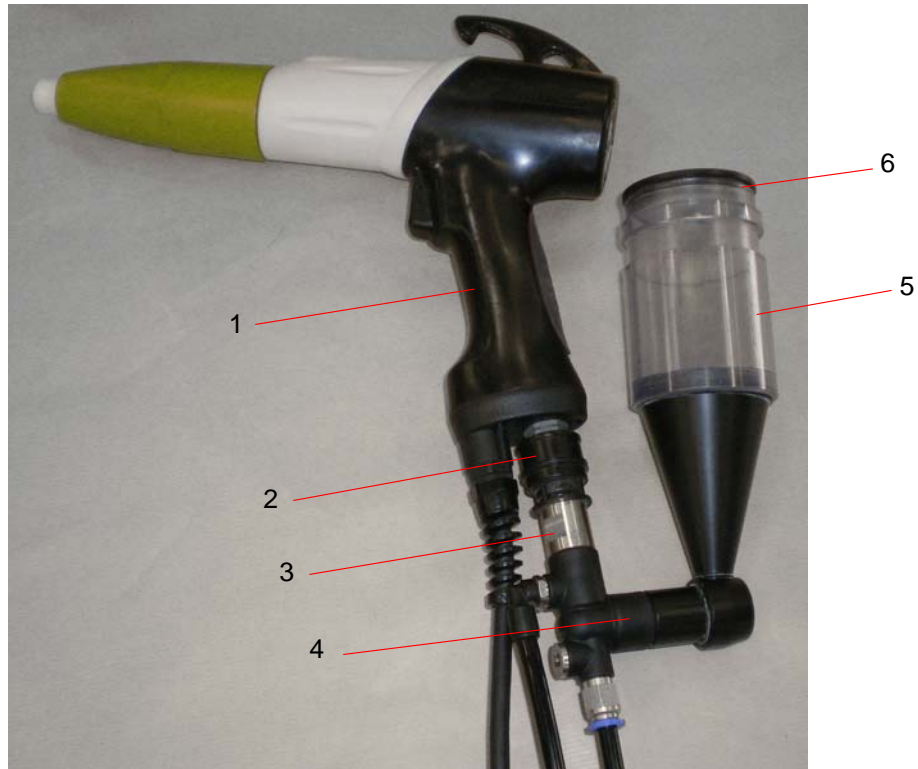
WARNING : The “Mach-Cup” is an optional fitting for the Mach-Jet Gun. It is intended for powder-paint spraying only.

- This device must only be used by personnel trained and accredited by SAMES Technologies. Operating staff must first read the user manual and the user manuals for any peripheral electrical equipment present in the spraying area. The workshop manager must ensure this is the case.
- The tank must only be filled with powder in a ventilated area designed for the purpose.
- Ambient temperature must not exceed 40 °C (104°F).
- The spraying area must be kept clean and clear of any unnecessary items.
- The floor on which the operator works must be anti-static (bare concrete or metal duckboard). Never use an insulating floor covering.
- Powder spraying must be carried out in front of a ventilated booth designed for the purpose. Start-up of the CRN 457 control module must be interlocked with operation of the ventilation system.
- Skin-contact with or inhalation of products used with this equipment may be dangerous for personnel (cf.: Safety sheets for products used).
- The parts to be painted must have a resistance with respect to ground that is less than or equal to 1MΩ.
- All conductive structures such as floors, walls of powder-spraying booths, ceilings, barriers, parts to be painted, powder distribution tank, etc. that are near the work station, and the ground terminal on the electro-pneumatic control module, must be electrically connected to the ground system protecting the electrical power supply.
- Powder-spraying equipment must be maintained regularly according to the instructions laid out in this manual.
- Only Sames Technologies original spare parts guarantee the operating safety of the equipment.
- Air supply hoses supplied by Sames Technologies must be exclusively used. These antistatic hoses enable any electrostatic charges generated by the powder moving through them to be discharged to ground.

2. Description

2.1. General presentation

The “Mach-Cup” tank is designed to be fitted to a “Mach-Jet” spray gun for the application of small quantities of powdered paint. The “Mach-Cup” tank has a 0.2 litre capacity and comes with a powder pump to feed the product into the gun.



Main components:

- “Mach-Jet” spray gun (item 1) [see RT Nr 6336](#).
- “Mach-Cup” tank, itself made up of the following components
 - a rotating union (item 2) for connecting the tank under the gun.
 - a connecting part (item 3), connecting the tank with the powder pump.
 - a powder pump (item 4)
 - a powder tank (item 5)
 - a cap equipped with a porous plate (item 6).
- a CRN 457 control module (not shown).

3. Characteristics

3.1. General characteristics

Overall size of Mach-Cup tank	180 x 180 x 80 mm
Tank weight (empty)	0.3 kg.
Tank capacity	0.2 l

3.2. Pneumatic characteristics

Characteristics of the compressed-air supply according to standard NF ISO 8573-1:

Maximum dew point at 6 bar (87 psi)	class 4, i.e. + 3 °C (37 ° F)
Maximum particle size of solid contaminants	class 3, i.e. 5 µm.
Maximum oil concentration	class 1, i.e. 0.01 mg/m ³ *
Maximum concentration of solid contaminants	5 mg / m ³ *

* : air flow-rate values are given for a temperature of 20°C (68°F) and an atmospheric pressure of 1013 mbar.

4. Operation

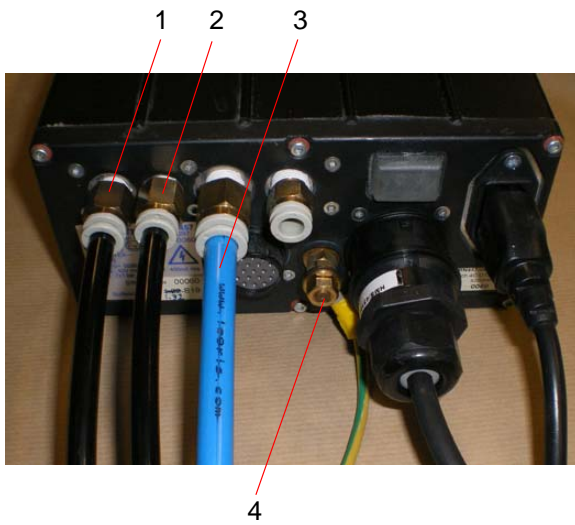
Fill the Mach-Cup tank with not compacted powder.

Press the gun trigger, the powder is then carried up to the powder channel of the gun via the powder pump.

5. Tools

No specific tools.

6. Installation



- **Step 1:** connect a 10 mm diameter air supply hose (item 3) to the CRN 457.
- **Step 2:** connect the injection air hose (P/N 130000624) dia. 8 mm:
 - to union (item 1) on the CRN 457.
 - to the powder pump (item 6)
- **Step 3:** connect the dilution air hose (P/N 130000625) dia. 6 mm:
 - to union (item 2) on the CRN 457.
 - to the powder pump (item 7).
- **Step 4:** connect the ground cable (item 4) to the ground terminal on the powder-coating installation.
- **Step 5:** fit the tank union (item 5) onto the “Mach-Jet” gun powder supply head and push the ring down to clip it in place.

7. Operation

- **Step 1:** Open the tank.
- **Step 2:** Fill the tank with not compacted powder (approx. 50 to 100 g powder).
- **Step 3:** Close the tank and connect it below the gun.
- **Step 4:** ([see RT Nr 6336](#)) to adjust the required powder flow-rate on the spray gun or control module.

8. Assembly/disassembly

Powder pump connections are all quick-connect type unions. To disassemble, simply press the ring and pull on the hose at the same time. To reassemble, simply push in fully.

9. Maintenance



WARNING : Cleaning operations must only be carried out using compressed air of maximum pressure 2.5 bar and a cloth. Water and solvents must not be used to clean the equipment.
The equipment must be cleaned at the end of each shift.

Part	Action	Frequency
Powder pump	Clean with compressed air	After each use

The tank must be cleaned every time the colour is changed.

10. Troubleshooting Guide

Symptom	Likely cause	Remedy
The powder comes out unevenly	Insufficient powder filtering	Increase dilution air
The powder does not come out	The bottom of tank is blocked	Clean the tank

11. Spare Parts



Item	Part number	Description	Qty	Unit of sale	Spare Part Level (*)
1	1524463	Mach-Jet Spray Gun (see RT Nr 6336)	1	1	3
2	910007106	Mach-Cup tank (see § 11.1 page 10)	1	1	2
3	130000624	Black semi-conducting polyurethane hose - 5.5/8 (injection) (included in item 2)	6	m	2
4	130000625	Black semi-conducting polyurethane hose - 4/6 (dilution) (included in item 2)	6	m	2
Not shown					
	1523297	CRN 457 control module (see RT Nr 6336)	1	1	3
	842635	5-m ground cable, lug dia.: 6	1	1	3
	E4PCAL206	Mains power cable	1	1	3

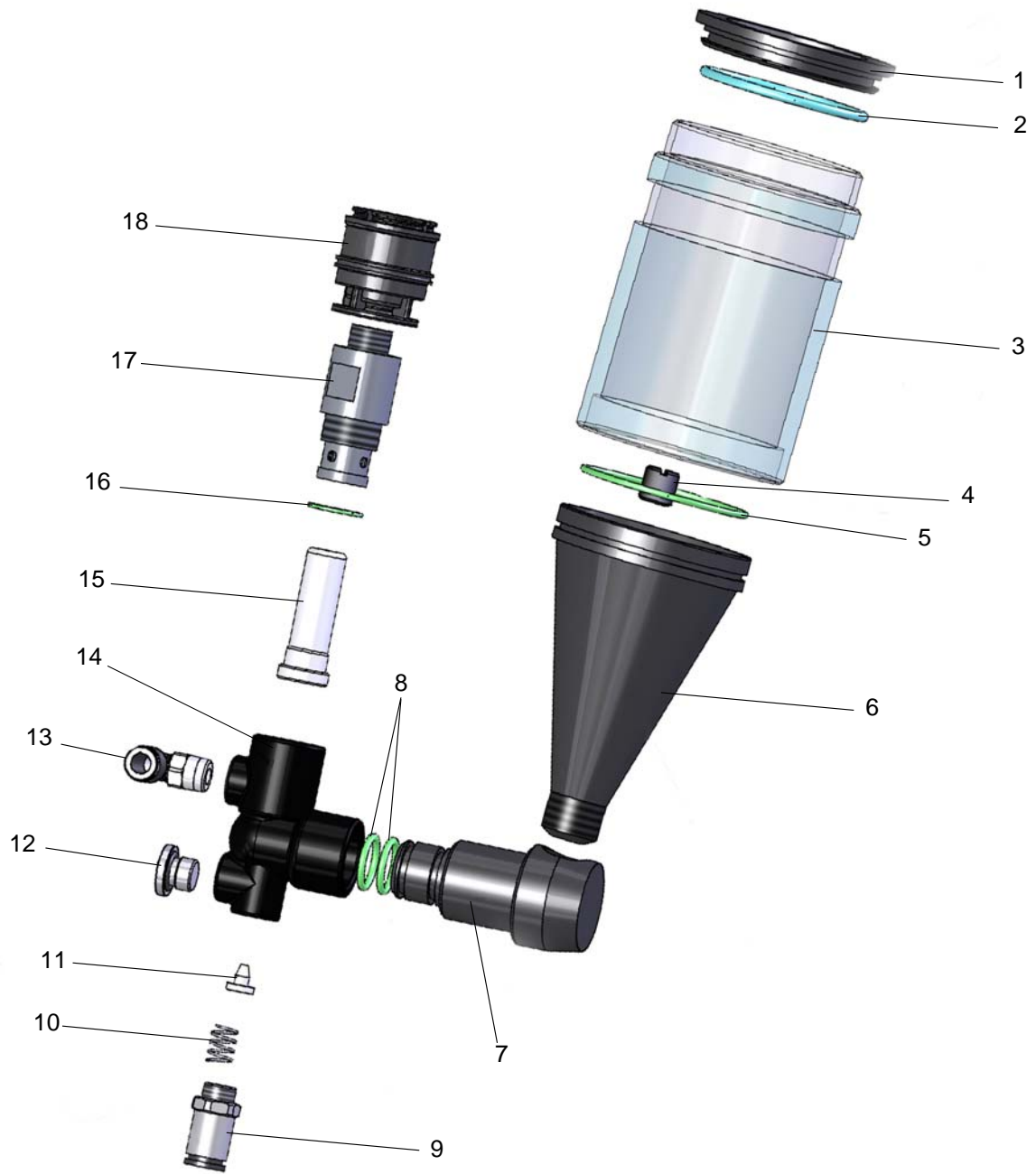
(*)

Level 1: Standard preventive maintenance

Level 2: Corrective maintenance

Level 3: Exceptional maintenance

11.1. Mach-Cup tank



Item	Part number	Description	Qty	Unit of sale	Spare Part Level (*)
	EU72095004MJ	Mach-Cup tank	1	1	2
1	910022095	Cap equipped with a porous plate	1	1	2
2	J2CTPB444	O-ring	1	1	1
3	EU2095030	Tank	1	1	3
4	900006276	Restrictor Dia: 3	1	1	2
5	J2FTDF453	O-ring - viton black	1	1	1
6	EU72095029MJ	Tank, inner part (cone)	1	1	3
7	EU2095025	Pump fitting	1	1	3
8	EU9001863	O-ring - viton	2	1	1
9	EU9001926	1/8" straight fitting	1	1	2
10	EU9001855	Compression spring	1	1	2
11	EU2095031	Pump injector	1	1	1
12	EU9001874	Plug, 1/8" BSP	1	1	3
13	F6RLCS367	Elbow union	1	1	2
14	EU2095010	Pump body	1	1	3
15	EU2095026	Pump insert	1	1	1
16	J2FENV418	O-ring - viton black	1	1	1
17	EU2095028MJ	Pump fitting	1	1	3
18	EU71411501MJ	Quick connect fitting	1	1	3
Not Shown					
	130000624	Black semi-conducting polyurethane hose - 5.5/8 (injection)	6	m	2
	130000625	Black semi-conducting polyurethane hose - 4/6 (dilution)	6	m	2

(*)

Level 1: Standard preventive maintenance

Level 2: Corrective maintenance

Level 3: Exceptional maintenance