GROG
PROFESSIONAL
SPRAY

OPERATING INSTRUCTION

HIGH-PRESSURE AIRLESS SPRAYERS

Please read and keep this manual. Read carefully before assembly, installation, operation or maintenance.

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SAFETY WARNINGS

- This equipment must only be operated by trained personnel.
- Every machine has a specific use. Please consult your GROG dealer if you have any questions.
- Never attempt to modify the equipment, nor exceed the maximum working pressure of the system.
- Check the equipment every day. Maintain or replace old or broken parts immediately.
- Read the warnings provided by the manufacturers of coatings and solvents. Make sure the coatings and solvents used are compatible with the wetted parts of the equipment.
- Do not drag the equipment by the high-pressure hose, nor place the hose in areas of heavy traffic, on sharp edges, on moving objects or on hot surfaces.
- Follow all relevant local and national laws and regulations regarding fire prevention, electricity usage and safety.
- Do not point the spray gun at anybody or any part of the body. Do not put your hand or finger on the gun tip, nor block a crack or leak point with your hand, body, glove or cloth.
- An injury caused by high-pressure coating injected into the skin may look like a simple cut, but it is a severe injury. The victim must see a doctor immediately.
- Before operating, tighten all connectors and make sure the trigger safety of the spray gun works correctly.
- When spraying is stopped, always lock the spray gun trigger.
- Check the high-pressure hose and connecting parts every day. Replace broken parts immediately. Do not repair a damaged high-pressure connection — the whole hose must be replaced.
- The intake hose of the gas-driven motor must be tied up and firmly connected.
- While the system is pressurised and the intake valve is open, do not loosen any connection between the coating pump, hose and spray gun.
- The equipment must be properly grounded during use. If electrostatic sparks occur or you receive an electric shock, stop spraying immediately until the cause is found and eliminated.
- Keep fresh air circulating to avoid the accumulation of flammable vapours from solvents and coatings during spraying.
- No naked flame is permitted in the spraying area. Do not smoke in the spraying area.
- Do not switch any light on or off in the spraying area during operation.

SAFETY WARNINGS (CONTINUED)

- Do not start a gasoline engine in the spraying area.
- Know the specific hazards of the coating you are using.
- Always wear protective glasses, gloves, clothing and a mask recommended by the coating and solvent manufacturers.
- Do not strike, knock or throw the cylinder of the machine. If the cylinder is found cracked, replace it with a new one. For safety it is recommended to replace the cylinder after 5000 hours (or 3 years) of use.
- The M12 / M14 bolts connecting the cylinder and its upper and lower covers must be tightened to the torque defined in the table below. If distortion or thread slipping is found, replace the bolts to the rating and specification listed.

Cylinder bolt tightening specification

Model of spraying machine	No. of bolts	Standard Code and Specification	Mechanical Performance Rating	Assembly Pre-tightening Force (kg)	Spanner Tightening Torque (kg.m)
GS12C	4	GB5782-86 M12			
GS1234					
GS12C-1					
GS12C-2					
GS2030	4	GB5782-86 M14			
GS4336					
GS2045					
GS4518					
GS2546	8	GB5782-86 M12			
GS4628					
GS2569					
GS6C					
GS4533					
GS6528K					
GS6022					
GS7615					
GS6536					
GS3845					
GS4634					
GS3834					

Important notice: Due to continual product improvement, the actual product may differ from the description in this manual. The actual product shall prevail. GROG Airless reserves the right to update specifications without prior notice.

1 GENERAL

Applicable models: GS1234 · GS2030 · GS2045 · GS4628 · GS2546 · GS2569 · GS4533 · GS6022 · GS4518 · GS7615 · GS12C · GS6C · GS6528K · GS4336 · GS12C-1 · GS12C-2 · GS6536 · GS3845 · GS4634 · GS3834

1.1 Application. These high-pressure airless spraying machines are a third-generation product. They suit industries such as steel structures, ships, automobiles, railway vehicles, geology and aerospace, for spraying new coatings or thick-film heavy-duty anti-corrosion coatings that are difficult to apply.

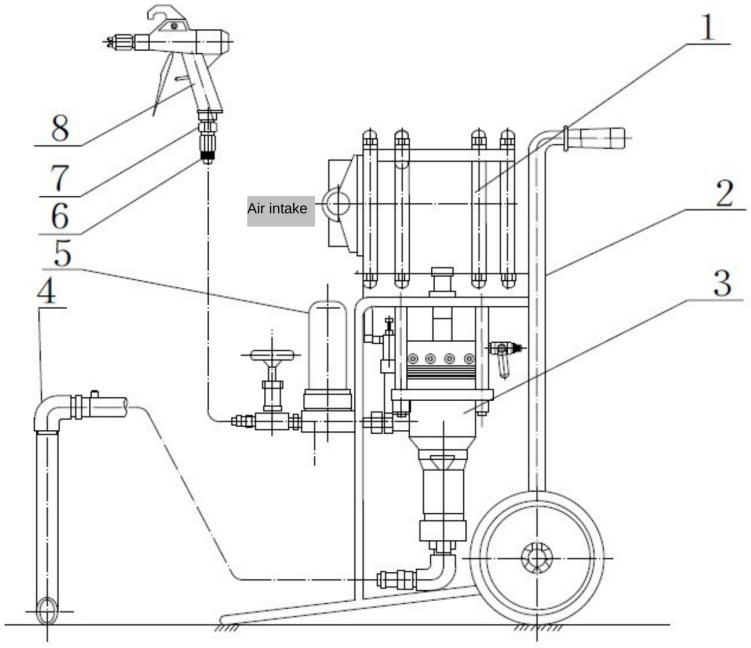
1.2 Product characteristics. The sprayers use advanced technology and are virtually free of the “dead point” fault on reversal and shutdown caused by frosting from adiabatic expansion of the exhaust. The new silencer greatly reduces exhaust noise. The pneumatic gas-distributing reversing device moves quickly and reliably with low air consumption. Compared with foreign units of the same parameters, weight is about one third and volume about one quarter, with high operational reliability that helps ensure coating quality.

2 MAIN TECHNICAL PARAMETERS

Model	Pressure Ratio	Coating Delivery (L/min)	Air Intake Pressure (MPa)	Air Consumption (L/min)	Mass (kg)
GS1234	34:1	5.6	0.3–0.6	180–2000	39
GS12C	30:1	6	0.3–0.6	180–2000	32
GS2030	30:1	20.8	0.3–0.6	220–2200	52
GS2045	45:1	13.8	0.3–0.6	220–2200	52
GS2546	46:1	20.8	0.3–0.6	250–2400	64
GS2569	69:1	18	0.3–0.6	250–2400	64
GS6C	68:1	14	0.3–0.6	250–2400	55
GS4533	45:1	33	0.3–0.6	300–2500	77
GS6022	60:1	22	0.3–0.6	300–2500	77
GS7615	76:1	15	0.3–0.6	300–2500	75
GS6528K	65:1	28	0.3–0.6	300–2500	62
GS4628	45:1	20	0.3–0.6	250–2400	64
GS4518	45:1	14	0.3–0.6	220–2200	52
GS4336	43:1 (mix 1:1, single 7.5)	—	0.3–0.6	250–2400	54
GS6536	65:1 (mix 1:1, single 7.5)	—	0.3–0.6	250–2400	54
GS3845	mix 1:2 · output 21 MPa	—	0.3–0.6	250–2400	90
GS4634	mix 1:3 · output 21 MPa	—	0.3–0.6	250–2400	90
GS3834	mix 1:4 · output 21 MPa	—	0.3–0.6	250–2400	90

Note: coating delivery capacity is measured under idle (no-load) conditions.

3 HIGH-PRESSURE AIRLESS SPRAYER – OUTLINE



#	Component	#	Component
1	Gas-driven pump	2	Frame
3	High-pressure pump	4	Paint suction machine
5	Pressure-storing filter	6	High-pressure hose
7	Union	8	High-pressure spray gun

WORKING PRINCIPLE

The main working part is a double-acting, gas-driven hydraulic booster pump. The reversing mechanism is a pilot, fully pneumatic gas-distributing device. As compressed air enters the cylinder, the piston travels up or down and actuates the upper or lower pilot valve; the control air instantly drives the distributing device, giving stable continuous reciprocation. Because the piston and the pump plunger are rigidly linked and the piston area is larger than the plunger, the drawn coating is pressurised. The pressurised coating travels through the high-pressure hose to the airless gun, where it is depressurised and atomised at

4 OPERATING METHOD

Before using. Check that all bolts, nuts, pipe connectors and the connecting nuts and hose clamps of the suction system are tight. Learn the open/close direction of the gate valve on each air circuit and the rotation direction of the pressure-regulating and discharge valves (turn the hand-wheel clockwise to open, anti-clockwise to close). The air compressor must have sufficient capacity. The air supply pipe must not exceed 5 m.

Priming. Place both the coating suction pipe and the discharge valve into the tank of diluted coating, connect the air supply, and adjust the air intake pressure according to the coating type. For safe use, the air intake pressure must not exceed 0.6 MPa, and should be kept as low as possible while still achieving good atomisation.

Idle circulation. Open the discharge valve (do not open the spray gun); the gas-driven hydraulic booster pump will reciprocate continuously and steadily. After the hydraulic system has circulated idle for 2–3 minutes, close the bleed valve. When the system pressure is balanced and the pump runs smoothly, spraying may begin.

Spraying. Hold the gun vertical, or almost vertical, to the workpiece, and move parallel to the surface at an even speed to avoid sagging.

Coating cleanliness. Keep the coating clean. Coating that is not clean must be filtered through a 40–100 mesh strainer according to particle size and viscosity. New, clean coating free of skin and grit does not need filtering once evenly mixed. Coating prone to settling should be stirred regularly during spraying.

Gun safety & nozzle. Lock the trigger safety whenever cleaning or replacing the nozzle or stopping work. Never point the gun at anyone. If the gun can still open after the safety is locked, adjust the small nut at the end of the valve-plug drawbar. If the nozzle clogs, soak it in solvent or clean it gently with a brush — never poke it with a hard object.

Rotating nozzle. If a rotating nozzle is slightly clogged, turn the handle 180° and trigger the gun — the coating pressure blows the dirt clear. If fully clogged, loosen the nozzle nut slightly. Only turn the handle after the coating is depressurised, otherwise the handle is easily damaged. Always fit a sealing ring between nozzle and gun.

Anti-frosting. After long continuous use, severe frosting may appear in and around the silencer. Fit a water-separating air filter and air dryer before the air inlet and remove the silencer, or replace the oil in the atomiser oil cup with radiator anti-icing fluid.

After spraying. When work is finished or the unit will be idle for a long time, remove the suction pipe from the tank, discharge residual coating by running the unit idle, then flush the whole hydraulic loop (pump, suction pipe, discharge valve, hose, gun and nozzle) with thinner or solvent. Keep the air-intake ball valve only slightly open, with about 30–40 strokes per minute.

5 COMMON FAULTS & TROUBLE-SHOOTING

Faults fall into two groups: air-system faults and coating-system faults. Do not dismantle blindly — analyse and eliminate step by step using the table below. First remove the pressure switch and close the air-intake ball valve. Always depressurise by opening the discharge valve before any service.

SN	Phenomenon	Reason	Trouble-shooting Method
1	Not enough power for reversing, small flow during operation.	Air intake amount not enough.	1) Check if the pressure of gas source meets the requirement? (0.6~0.8MPa) 2) Do the specifications of air compressor and the drift diameter of gas source pipeline meet the requirements? (the delivery capacity should not be less than 1.2 m³/min, the drift diameter of the pipeline should not be less than 20mm) 3) Are the connectors on each pipeline tightened? 4) Has the air intake switch reached the maximum opening?
2	The sprayer is whirring; the coating pressure is not enough; the atomization is not good.	1) Severe abrasion between slide boards; the contact surfaces are not parallel; the sealing is not good; air partially escapes; air intake amount of the cylinder decreases; not enough spraying pressure due to the reduction of piston thrust. 2) Deformation of slide block after long-term use. The air flow cannot press one slide block onto another, causing leakage. 3) The O-shape rubber sealing ring in the cylinder is abraded and raised, resulting in insufficient gas pressure. 4) The air intake cartridge is blocked by foreign objects.	1) Dismantle the gas-distributing block and slide block and grind them flat on metallographic abrasive paper on a flat plate; clean and check flatness with red lead powder. After grinding flat, oil the slide board and slide-block cavity with 20# engine oil and reassemble. 2) Grind the gas-distributing block and slide block until working smoothly with the reversing piston; oil with clean 20# engine oil. 3) Unscrew the cover bolts, open the cylinder, replace the damaged O-ring, oil the cylinder inwall with 20# engine oil. 4) Clean or replace the air intake cartridge.
3	The sprayer stops after starting. A gas stream sprays continuously from upper or lower observation plug hole.	Foreign object exists on the outer edge of the O-shape sealing ring on the reversing piston; blowby happens between the upper and the lower cavity.	Dismantle the gas-distributing board and the upper cover of the reversing piston, take out the reversing piston and replace the broken O-ring. Purge and clean the reversing piston hole with compressed air. Oil the inwall and O-ring with clean 20# engine oil and assemble as per original forms.
4	The sprayer stops after starting. A gas stream sprays continuously from the silencer.	1) The reversing block stops at the dead point position in the middle. 2) The O-shape sealing ring of the cylinder piston is broken. 3) The M8 nut of the gas-distributing piston rod is lost.	1) Dismantle the screw on the air intake cover and push the reversing piston to leave the dead point. 2) Replace the O-ring of the cylinder; oil the inwall with clean 20# engine oil. 3) Re-tighten the M8 nut.

SN	Phenomenon	Reason	Trouble-shooting Method
5	The pressure drops suddenly during spraying; atomization is not good; the coating sprays like rays or no coating sprays, but the gas-driven pump works normally.	1) The coating suction inlet is blocked. 2) On each valve port, foreign objects raise the valve plug. 3) The spring above the plunger valve body is fractured. 4) “Cavitation Erosion” happens on each high-pressure valve port. 5) The V-shape sealing ring on the plunger valve body has been abraded.	1) Clean the suction inlet. 2) Clean the foreign objects on each valve port. Clean the strainer inside the pressure reservoir. 3) Replace the spring. 4) Replace the suction valve body, the plunger valve body, the discharge valve body or the steel ball. 5) Replace the V-shape sealing ring on the plunger valve body.
6	After the discharge valve and the spray gun have been closed, the gas-driven motor still moves to-and-fro regularly.	1) The V-shape sealing ring on the plunger valve body has been abraded. 2) The high-pressure valve ports on the plunger valve, the suction valve and the discharge valve are broken.	1) Replace the V-shape ring on the plunger valve body. **Caution: replace the V-shape sealing ring in group and as per its quantity and direction before it is dismantled.** 2) Replace the suction valve body, the discharge valve body or the steel ball.
7	During spraying, coating is found in the oil cup of the pump base.	The V-shape sealing ring in the pump base is abraded.	Replace the V-shape sealing ring in the pump base. **Caution: replace the V-shape sealing ring in group and as per its quantity and direction before it is dismantled.**

Generally speaking, the trouble-shooting should be done step by step. At first, presume some parts are normal and the others are not, and check the parts you think are faulty. If the checked parts are normal, check other parts, until all faults are eliminated.

Caution: Before the trouble-shooting and maintenance operation, the air intake ball valve must be closed and the system must be depressurized by opening the discharge valve.

6 EQUIPMENT MAINTENANCE

- Do not over-bend, step on, crush or run wheels over the high-pressure hose.
- Maintain and clean all strainers regularly (coating sucker, pressure-storing filter and the inner tube of the pikestaff).
- Never clear a blocked nozzle with a needle — it damages the lip and ruins atomisation.
- Lubricate the pump rods of the gas-driven and plunger pumps regularly (at the 43# compacting screw).
- Keep the oil cup of the gas-driven dual parts filled with 20# engine oil.

7 SPARE-PARTS PACKAGES LIST

Model GS12C · GS1234 · GS12C-2 · GS4336 · GS6536 High-pressure Airless Sprayer

SN	Name	Specification	Quantity	Assembling part
1	Kraft V-shape sealing ring	Ø30 XØ16X 6	3	Plunger valve body
2	PTFE V-shape sealing ring	Ø30 XØ16X 6	3	Plunger valve body
3	Kraft V-shape sealing ring	Ø35 XØ20.9X 6.5	6	Pump base
4	PTFE V-shape sealing ring	Ø35 XØ20.9X 6.5	6	Pump base
5	61# pump body sealing ring	Ø46.5 XØ42X 4	1	Coating cylinder
6	64# Packing washer	Ø35.5 XØ30X 4	1	Coating cylinder

Model GS2030 · GS4628 · GS2546 · GS6022 · GS6528K · GS12C-1 High-pressure Airless Sprayer

SN	Name	Specification	Quantity	Assembling part
1	46# Kraft V-shape sealing ring	Ø51.5 XØ36.5X 6	6	Coating cylinder
2	45# PTFE V-shape sealing ring	Ø51.5 XØ36.5X 6	6	Coating cylinder
3	59# pump body washer	Ø74 XØ68X 4	1	Coating cylinder
4	66# suction valve washer	Ø59 XØ51X 4	1	Coating cylinder

Model GS2045 · GS4518 · GS2569 · GS6C · GS7615 High-pressure Airless Sprayer

SN	Name	Specification	Quantity	Assembling part
1	46# Kraft V-shape sealing ring	Ø42 XØ30X 7	6	Coating cylinder
2	45# PTFE V-shape sealing ring	Ø42 XØ30X 7	6	Coating cylinder
3	59# pump body washer	Ø61.5 XØ30X 7	1	Coating cylinder
4	66# suction valve washer	Ø49 XØ45X 4	1	Coating cylinder

Model GS3845 · GS4634 · GS3834 High-pressure Airless Sprayer

SN	Name	Specification	Quantity	Model
1	Kraft V-shape sealing ring	Ø60 XØ40X 8	2	GS3845 · GS3834
2	PTFE V-shape sealing ring	Ø60 XØ40X 7.5	3	GS3845 · GS3834
3	Kraft V-shape sealing ring	Ø64 XØ42.6X 9	4	GS3845 · GS3834
4	PTFE V-shape sealing ring	Ø64 XØ42.6X 8	4	GS3845 · GS3834
5	46# Kraft V-shape sealing ring	Ø51.5 XØ36.5X 6	6	GS4634
6	45# PTFE V-shape sealing ring	Ø51.5 XØ36.5X 6	6	GS4634
7	59# pump body washer	Ø74 XØ68X 4	1	GS4634
8	66# suction valve washer	Ø59XØ51X 4	1	GS4634
9	46# Kraft V-shape sealing ring	Ø42 XØ30X 7	6	GS3845
10	45# PTFE V-shape sealing ring	Ø42 XØ30X 7	6	GS3845
11	59# pump body washer	Ø61.5 XØ56.5X 4	1	GS3845
12	66# suction valve washer	Ø49 XØ45X 4	1	GS3845
13	Kraft V-shape sealing ring	Ø30 XØ16X 6	3	GS4634 · GS3834
14	PTFE V-shape sealing ring	Ø30 XØ16X 6	3	GS4634 · GS3834
15	Kraft V-shape sealing ring	Ø35 XØ20.9X 6.5	6	GS4634 · GS3834
16	PTFE V-shape sealing ring	Ø35 XØ20.9X 6.5	6	GS4634 · GS3834
17	61# pump body sealing ring	Ø46.5 XØ42X 4	1	GS4634 · GS3834
18	64# Packing washer	Ø35.5 XØ30X 4	1	GS4634 · GS3834

8 PACKING LIST

8.1 GS2030 · GS2045 · GS2546 · GS2569 · GS6022 · GS7615 · GS4518 · GS4628 · GS6C · GS6528K

Item	Qty
Complete airless sprayer set	1 set
Airless sprayer	1 set
Rotating nozzle	1 set
High-pressure hose (ø8 mm × 10 m)	1 set
High-pressure hose (ø6 mm × 2 m)	1 set
Transition joint (M14×1)	1 set
Manufacturer spare parts	1 set
Hook spanner 78–85	1 set
Hook spanner 55–62	1 set
Hex key 5 mm	1 set
Hex key 6 mm	1 set
Instruction manual	1 copy
Qualification certificate	1 copy

8.2 GS12C · GS12C-1 · GS1234

Item	Qty
Complete airless sprayer set	1 set
Airless sprayer	1 set
Rotating nozzle	1 set
High-pressure hose (ø6 mm × 10 m)	1 set
Manufacturer spare parts	1 set
Hook spanner 55–62	1 set
Hook spanner 34–36	1 set
Hex key 5 mm	1 set
Hex key 6 mm	1 set
Instruction manual	1 copy
Qualification certificate	1 copy

8 PACKING LIST (CONTINUED)

8.3 GS12C-2

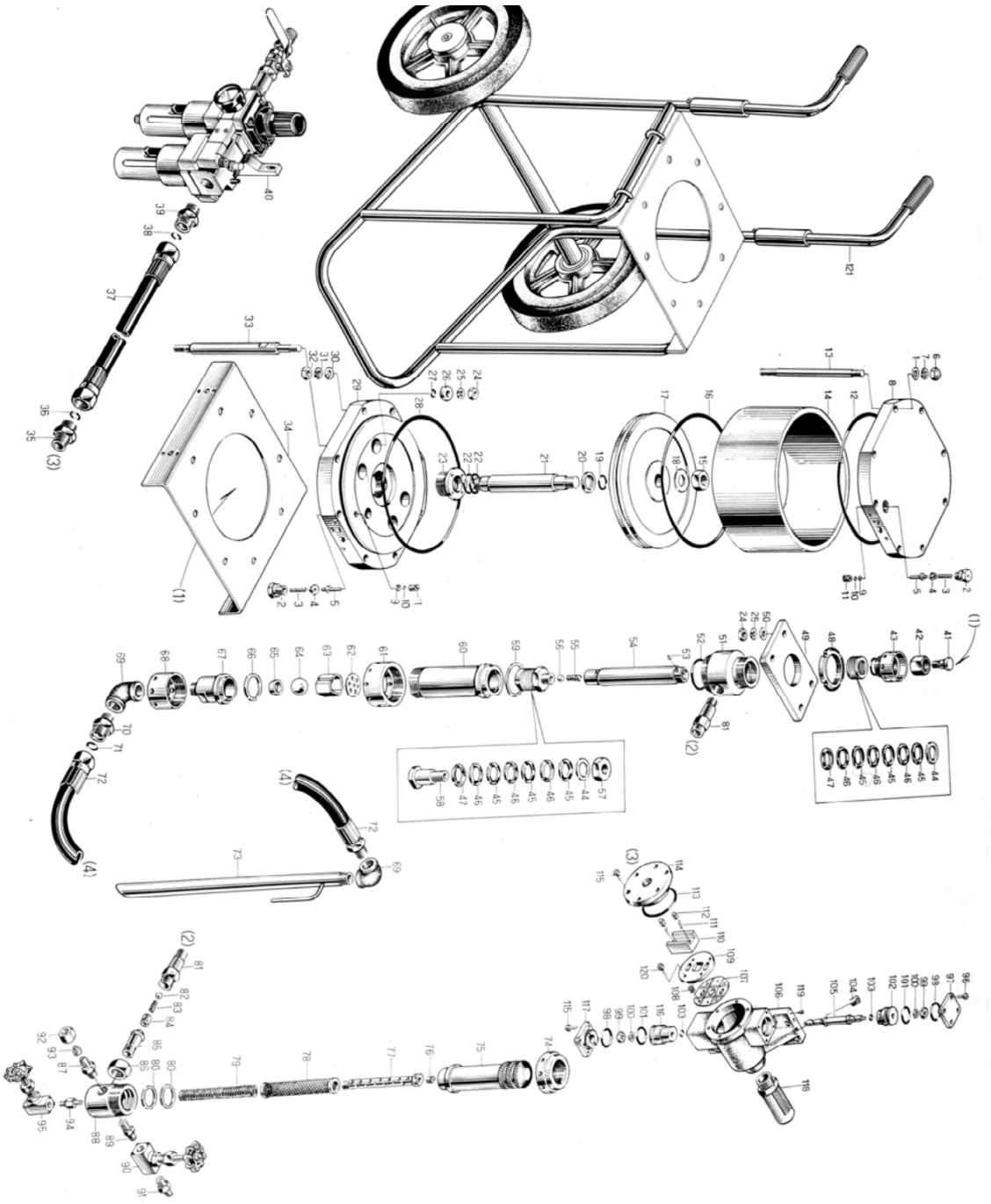
Item	Qty
Airmix paint sprayer	1 set
Airmix spray gun	1 set
Rotating nozzle	1 set
High-pressure hose (ø6 mm × 10 m)	1 set
Manufacturer spare parts	1 set
Hook spanner 52–62	1 set
Hook spanner 34–36	1 set
Hex key 5 mm	1 set
Hex key 6 mm	1 set
Instruction manual	1 copy
Qualification certificate	1 copy

8.4 GS4336 · GS6536 · GS3845 · GS4634 · GS3834

Item	Qty
Two-component high-pressure airless sprayer	1 set
Two-component gun	1 set
Rotating nozzle	1 set
High-pressure hose (ø6 mm × 10 m)	1 set
Manufacturer spare parts	1 set
Hook spanner	1 set
Hex key 5 mm	1 set
Hex key 6 mm	1 set
Instruction manual	1 copy
Qualification certificate	1 copy

9 AXONOMETRIC DRAWING – FRAME MODELS

GS2030 · GS2045 · GS2546 · GS2569 · GS6022 · GS4518 · GS4628 · GS7615 · GS6C · GS6528K · GS3845 · GS4634 · GS3834

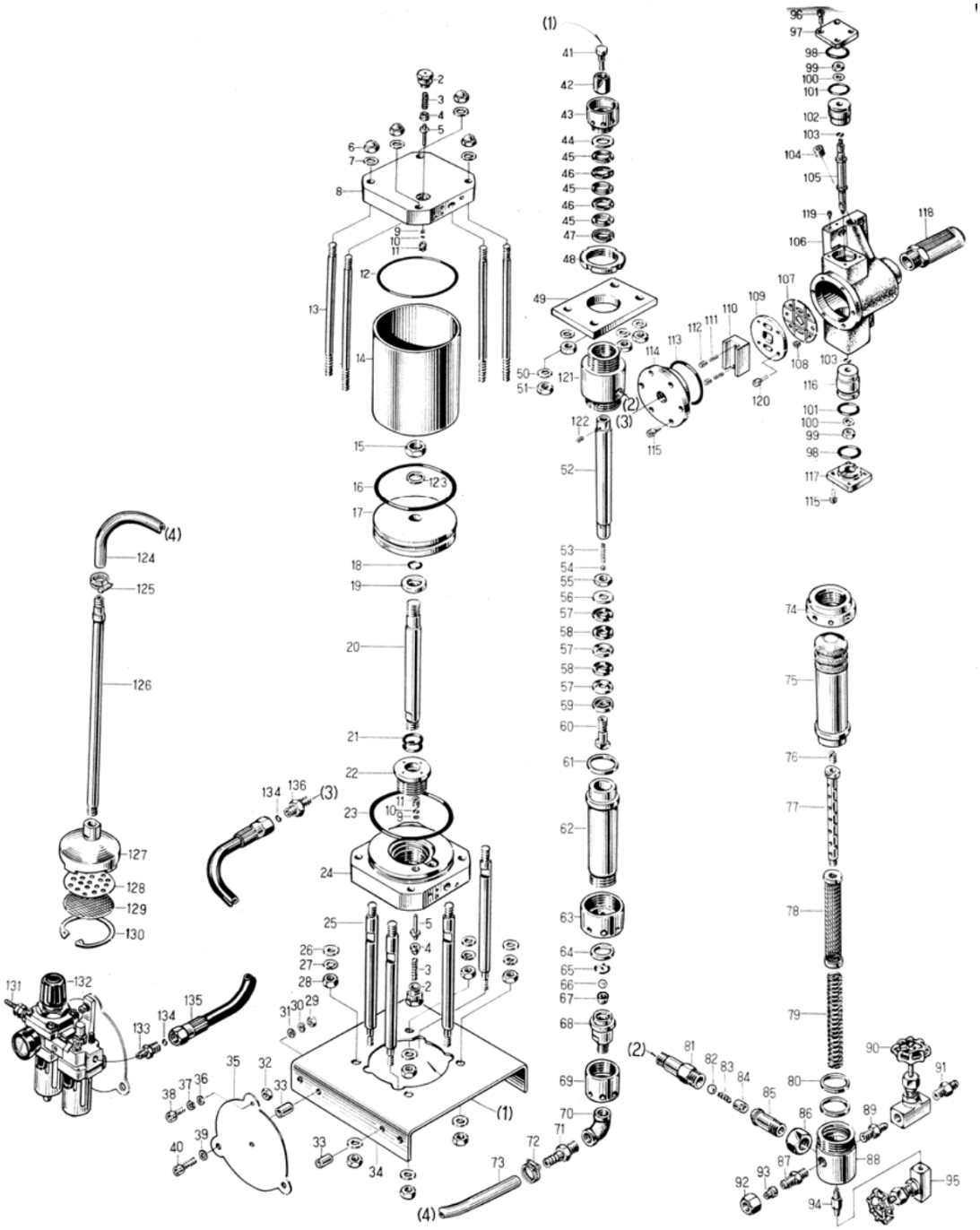


10 PARTS LIST – FRAME MODELS

SN	Name	SN	Name	SN	Name	SN	Name
1	Plain washer	31	Light spring washer	61	Pump body nut	92	Nut
2	One-way valve cover	32	Nut	62	Spring Ø52XØ4.5X28	93	End cap
3	Rectangular spring	33	Bolt	63	Retaining ring	94	Joint
4	Sliding bush	34	Panel	64	Steel ball	95	Needle valve
5	Check valve assembly	35	Air intake joint	66	Suction valve washer	96	Inner hexagon cheese head screw
6	Cap nut	36	Packing pate	67	Suction valve body	97	Upper cover of gas-distributing cylinder
7	Spring washer	37	Air intake pipe	68	Suction valve nut	98	O-shape sealing ring
8	Upper cover of cylinder	38	Packing pate	69	Angle ball joint	99	Nut
9	Retaining ring	39	Joint	70	Coating suction pipe joint	100	Washer
10	O-shape sealing ring	40	Gas-driven dual parts (assembly)	71	Packing pate	101	O-shape sealing ring
11	Sealing base	41	Connecting screw	72	Coating suction hose	102	Gas-distributing short piston
12	O-shape sealing ring	42	Connecting nut	73	Feeding pipe	103	O-shape sealing ring
13	Screw stud	43	Housing pin	74	Gland nut	104	End cap
14	Cylinder body	44	Sealing baseplate	75	Pressure storing cylinder	105	Gas-distributing piston rod
15	Nut	45	V-shape ring (leather)	76	L screw plug	106	Gas-distributing body
16	O-shape sealing ring	46	V-shape ring (Plastic)	77	Coating passing pipe	107	Sealing gasket
17	Piston	47	Sealing pressure plate	78	Strainer assembly	108	Gasket
18	Gasket	48	Round nut	79	Strainer framework	109	Gas-distributing plate
19	O-shape sealing ring	49	Fixing plate	80	Gasket	110	Gas-distributing slide block
20	Piston gasket	50	Plain washer	81	Check valve body	111	Spring
21	Piston rod	51	Pump base	82	Steel ball	112	Spring base
22	O-shape sealing ring	52	Pump body gasket	83	Spring	113	O-shape ring
23	Guiding packing gland	53	Spring Ø62XØ5X40	84	Spring base	114	Air intake cover
24	Nut	54	Pump rod	85	Union	115	Inner hexagon cheese head screw
25	Plain washer	55	Spring	86	Union nut	116	Gas-distributing piston
26	Bolt gasket	56	Steel ball	87	Discharge connector	117	Cover of gas-distributing cylinder
27	O-shape sealing ring	57	Nut	88	Main body of pressure reservoir	118	Silencer
28	O-shape sealing ring	58	Gasket body	89	Joint	120	Inner hexagon cheese head screw
29	Cylinder baseplate	59	Pump body gasket	90	Needle valve	121	Frame assembly
30	Plain washer	60	Pump body	91	Discharge connector		

11 AXONOMETRIC DRAWING – COMPACT MODELS

GS12C · GS12C-1 · GS12C-2 · GS4336 · GS6536 · GS1234



12 PARTS LIST – COMPACT MODELS

SN	Name	SN	Name	SN	Name	SN	Name
1	Frame assembly	35	Fixing plate for dual parts	69	Small housing nut	103	O-shape sealing ring
2	One-way valve cover	36	Gasket	70	Angle ball joint	104	End cap
3	Rectangular spring	37	Spring washer	71	Feeding joint	105	Gas-distributing piston rod
4	Sliding bush	38	Inner hexagon cheese head screw	72	Clamp	106	Gas-distributing body
5	Check valve assembly	39	Gasket	73	Coating suction pipe	107	Sealing gasket
6	Cap nut	40	Inner hexagon cheese head screw	74	Housing nut	108	Gasket
7	Gasket	41	Connecting screw	75	Pressure storing cylinder	109	Gas-distributing plate
8	Cylinder cover	42	Connecting nut	76	Screw plug	110	Gas-distributing slide block
9	Retaining ring	43	Housing pin	77	Coating passing pipe	111	Spring
10	O-shape sealing ring	44	Sealing baseplate	78	Strainer assembly	112	Spring base
11	Sealing base	45	V-shape ring (leather)	79	Strainer framework	113	O-shape sealing ring
12	O-shape sealing ring	46	V-shape ring (Plastic)	80	Gasket	114	Air intake cover
13	Screw stud	47	Sealing pressure plate	81	Check valve body	115	Inner hexagon cheese head screw
14	Cylinder body	48	Round nut	82	Steel ball	116	Gas-distributing piston / cylinder head
16	O-shape sealing ring	50	Gasket	84	Spring base	118	Silencer
17	Piston	51	Nut	85	Union	119	Holding screw
18	O-shape sealing ring	52	Pump rod	86	Union nut	120	Inner hexagon cheese head screw
19	Piston gasket	53	Spring	87	Discharge connector	121	Pump base
20	Piston rod	54	Steel ball	88	Main body of pressure reservoir	122	Holding screw
21	O-shape sealing ring	55	Nut	89	Joint	123	Gasket
22	Guiding packing gland	56	Sealing pressure plate	90	Needle valve	124	Coating suction pipe
23	O-shape sealing ring	57	V-shape ring (leather)	91	Discharge connector	125	Clamp
24	Cylinder baseplate	58	V-shape ring (Plastic)	92	Nut	126	Feeding pipe
25	Bolt	59	Sealing baseplate	93	End cap	127	Coating sucker body
26	Gasket	60	Valve body	94	Joint	128	Strainer plate
27	Light spring washer	61	Pump body sealing ring	95	Needle valve	129	Strainer
28	Nut	62	Pump body	96	Inner hexagon cheese head screw	130	Retaining ring for hole
29	Nut	63	Housing nut	97	Upper cover of gas-distributing cylinder	131	Quick connector
30	Gasket	64	Packing washer	98	O-shape sealing ring	132	Gas-driven dual parts
31	Spring washer	65	Retaining ring	99	Nut	133	Joint
32	Nut	66	Steel ball	100	Gasket	134	Sealing pate
33	Bushing	67	Suction valve body	101	O-shape sealing ring	135	Air intake pipe
34	Panel	68	Suction valve body	102	Gas-distributing short piston	136	Air intake joint

13 ROTATING NOZZLE

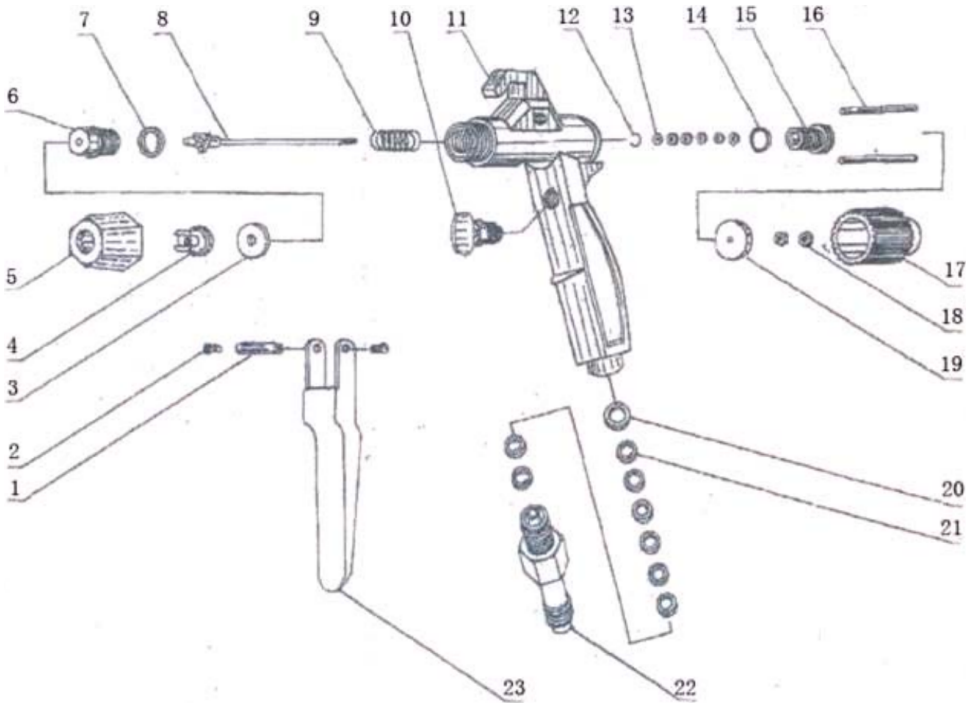
Standard types: 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 311, 313, 315, 317, 411, 413, 415, 417, 419, 421, 425, 513, 515, 517, 519, 521, 523, 525, 526, 531, 533, 535, 543, 613, 615, 617, 619, 621, 623, 625, 627, 631, 723, etc.

Fit: universally compatible with airless sprayer machines. More wear-resistant for longer life and a perfect atomising result.

The GROG nozzle series sets a new standard for spray painting: easy to use, finely made, with an exceptionally durable core that guarantees a high-quality painted surface. It offers a wide choice of spray widths and suits all kinds of paint, primer, emulsion varnish, corhart, fireproof materials and even plaster materials.

How to read a nozzle number
The first digit (×2) gives the spray-pattern width; the last two digits give the orifice in thousandths of an inch.
Example 519 — 5 = 250 mm spray width, 19 = 0.19 mm orifice.
Example 415 — 4 = 200 mm spray width, 15 = 0.15 mm orifice.

14 MODEL SPQ2 AIRLESS SPRAY GUN



SN	Name	Qty	SN	Name	Qty
1	Lateral pin	1	13	Gasket	5
2	Screw M4×6	2	14	Gasket	1
3	Sealing plate	1	15	Sealing screw	1
4	Standard nozzle	1	16	Plunger tip	1
5	Nozzle nut	1	17	Nut	1
6	Gun valve base	1	18	Nut	2
7	Gasket	1	19	Crown plate	1
8	Gun valve plug	1	20	Sealing plate	1
9	Spring	1	21	Gasket	8
10	Self-locking retaining plate	1	22	Rotating joint	1
11	Gun body	1	23	Trigger	1
12	Retaining ring	1			

Note: a “Z” in the part code indicates that the part is an assembly.

ABOUT GROG AIRLESS

GROG Airless builds its business on the principle of putting the customer first and striving for perfection, delivering high-quality professional spraying equipment and service. Thank you for your trust.

The GS series of high-pressure airless spraying equipment is currently available in the following models:

GS1234	GS9C	GS2538	GSA9C	GS3845
GS2A1	GS4533	GS6022	GS6525K	GS4634
GS6C	GS2546	GS12C	GSA6528K	GS3834
GS7615	GS2569	GS12C-1	GS4050	GS3550V
GS2030	GS4628	GS12C-2	GS4336	880i
GS2045	GS4518	GSA6C	GS6536	990i

“GROG” GS-series high-pressure airless sprayers are used for coating steel structures, ships, encaustic tiles, large buildings, bridge steel-structure decks, pressure vessels, leather, locomotives, railway vehicles, cars, aircraft, chemical and wind-power equipment, furniture, racks, containers, pipelines, storage tanks, pharmaceutical tablet coatings and more.

- A wide range of models is available to match your coating requirements.
- The factory-fitted nozzle may not match your application — over 30 nozzle specifications are available to order separately.
- If a fault cannot be cleared after reading this manual, contact GROG Airless support with a clear description of the fault and how it occurred.
- Operators and maintenance staff must be familiar with all requirements of this manual.
- We sincerely hope you will choose complete sets or parts of GROG spraying equipment.

CONTACT

GROG Airless

Professional airless spraying equipment

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