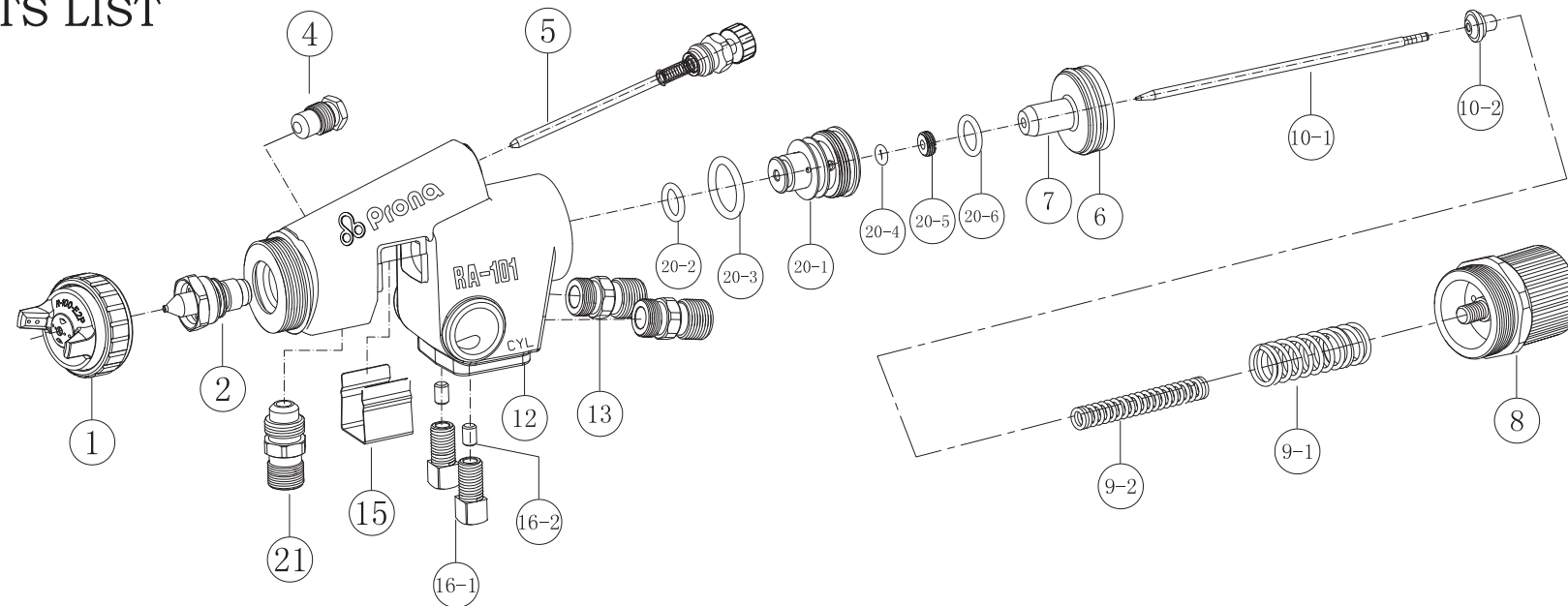


PARTS LIST



No.	Description	Q' ty	No.	Description	Q' ty	No.	Description	Q' ty
1	Air cap set	1	9-2	Needle spring 2	1	20-1	Air valve seat	1
2	Fluid nozzle	1	10-1	Fluid needle	1	20-2	O ring (P9)	1
4	Fluid needle packing screw set	1	10-2	Fluid needle seat	1	20-3	O ring (P16)	1
5	Pattern adjusting set	1	12	Gun body	1	20-4	O ring (P3)	1
6	Fluid needle guide packing	1	13	Air connector	2	20-5	Packing holder	1
7	Fluid needle guide	1	15	Protective cover	1	20-6	O ring (P10)	1
8	Fluid adjusting knob guide set	1	16-1	Fixed bolt	2	21	Fluid connector	1
9-1	Needle spring 1	1	16-2	Fixed bolt holder	2			

Prior to operation read the operating instructions carefully.

OPERATION

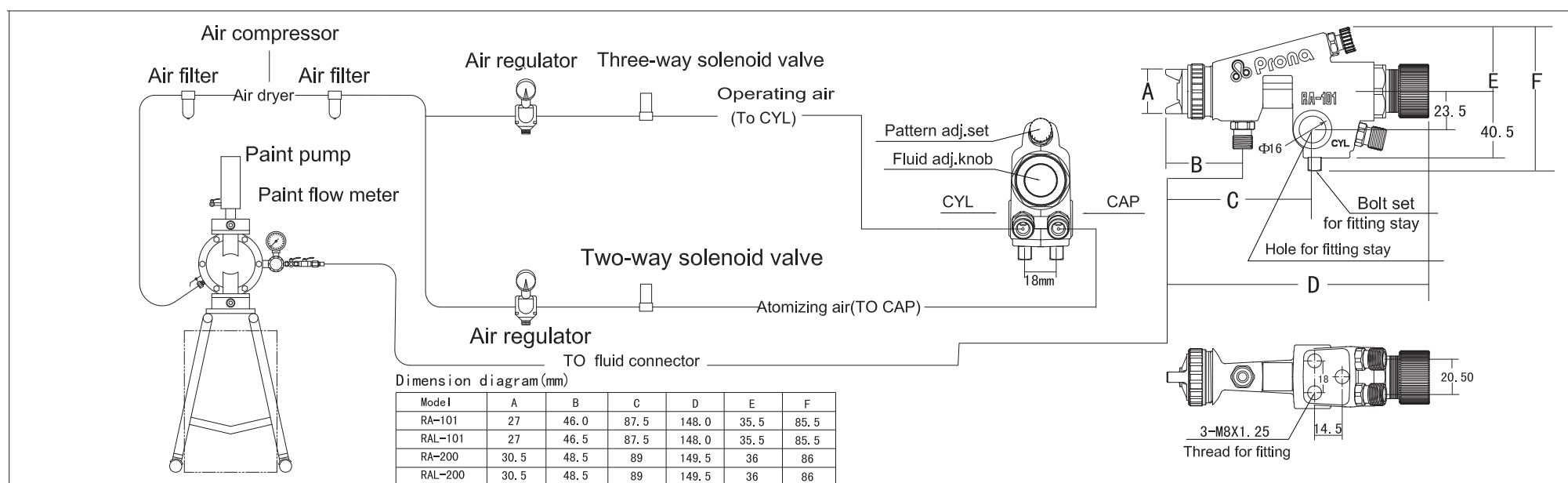
Connect atomizing air hose to atomizing air connector (CAP marked) and operating air hose to operating air connector (CYL marked) tightly. Connect fluid hose to fluid connector tightly.

Valve orifice inside three-way solenoid valve should be minimum $\Phi 4\text{mm}$ (0.157 in) and the operating hose should be within 10 m (32.8 ft) and the inside diameter must be not less than 6mm (0.236 in) to avoid delayed operation and any failure.

The recommended operating air pressure is 3-4 bar (43-57 psi) with RA-101/200 and RAL-101/200. When pattern adjusting set is fully opened, atomizing air pressure to pull the gun piston is recommended to adjust 3-4 bar (43-57 psi) with RA-101/200, and adjust 2.7 bar (38 psi) with RAL-101, 2.0 bar (29 psi) with RAL-200. So the gun will atomize at 0.7 bar (10 psi) inside air cap. The recommended spray distance to object is 15-20 cm (5.9-7.9 in) with RA-100; 10-20 cm (3.9-7.9 in) with RAL-101. And 20-25 cm (7.9-9.8 in) with RA-200; 10-20 cm (3.9-7.9 in) with RAL-101/200.

Beyond the recommended spray distance may fail to obtain good finishing.

Material viscosity 15-23 seconds/Ford#4 is recommended. It varies according to material property and spraying conditions. Material should be filtered through 60-90 mesh filter before use. Whenever possible there should be air filters and air regulators in the system as diagram. Replace any worn items before continuing to operate. The AUTOMATIC SPRAY GUN has been designed as an AIR OPERATED TOOL, and in the interests of safety must only be used for the purpose for which it has been designed. The tool should in no account be used for any other purpose for whatever reason, this could result in danger to the operator and those within the immediate working area. Ensure the material and air supply are disconnected before effecting any work on the Automatic Spray Gun.



SERVICING

- Clean air cap set, fluid nozzle and fluid needle with brush after each operation.
- Do not submerge complete automatic spray gun in solvents.
- Do not damage holes of air cap set and fluid nozzle.
- Flush the gun material passage with a compatible solvent.
- Ensure the material and air supply are disconnected before effecting any work on the Automatic Spray Gun.

PERSONAL PROTECTIVE EQUIPMENT

The use of breathing mask is recommended at all times when spraying. The noise level may exceed 85 dB (A) when the spray gun is being used, a sound absorber protection is also recommended. Always wear goggles and gloves when spraying or cleaning.

SAFETY

Never allow untrained or unauthorized persons to operate this automatic spray gun. Never exceed the recommended air pressure. Never use matches, smoke or operate a spray gun in the vicinity of a naked flame. Do not spray food or chemicals through the automatic spray gun. Use only original spare parts. Do not use the following solvents: 1,1,1-Trichloroethane and Methylene Chloride. These solvents can chemically react with aluminium used in automatic spray guns possibly causing an explosion. Do not use these solvents for equipment cleaning or flushing. Automatic spray gun should never be stored in acid laden cleaners. If in doubt consult the material supplier.

Model	Type of feed	Nozzle orifice ϕ mm(in)	Atomizing air pressure Mpa (bar)	Air consumption l/min	Fluid output ml/min	Pattern width mm	Air cap set	Approx weight g
RA-101-P08	Pressure	0.8 (0.031)	0.29 (3.0)	260	210	220	E2P	480
RA-101-P10		1.0 (0.039)	0.29 (3.0)	260	250	240	E2P	
RA-101-P13		1.3 (0.051)	0.29 (2.5)	215	340	250	H2	
RA-101-P15		1.5 (0.059)	0.29 (2.5)	215	350	260	H2	
RA-101-P18		1.8 (0.071)	0.24 (2.5)	190	570	290	N2	548
RA-200-P12		1.2 (0.047)	0.29 (3.0)	370	530	390	G2P	
RA-200-P15		1.5 (0.059)	0.29 (3.0)	280	380	340	K2	
RA-200-P18		1.8 (0.071)	0.29 (3.0)	280	425	320	K2	
RA-200-P20		2.0 (0.079)	0.29 (3.0)	300	450	320	R2	480
RA-200-P25		2.5 (0.098)	0.29 (3.0)	305	520	330	W2	
RAL-101-P08		0.8 (0.031)	0.29 (3.0)	355	330	300	E1	
RAL-101-P10		1.0 (0.039)	0.29 (3.0)	355	345	300	E1	
RAL-101-P12		1.2 (0.047)	0.29 (3.0)	360	390	300	G2	548
RAL-200-P08		0.8 (0.031)	0.24 (2.5)	420	340	270	G2	
RAL-200-P10		1.0 (0.039)	0.24 (2.5)	335	265	280	G2	
RAL-200-P12		1.2 (0.047)	0.34 (3.5)	280	315	300	G2	

Atomizing air pressure means air pressure at gun inlet when air valve is open air flows. Maximum working pressure: 6.8 bar (98 psi). When ordering, please specify Model No. and Air Cap Set No.

TROUBLE - SHOOTING

TROUBLE	CAUSE	CORRECTION
Fluttering	a. Insufficient material in cup. b. Dry or worn fluid needle packing set or loose fluid needle packing screw. c. Loose or damaged fluid nozzle.	a. Refill material. b. Lubricate or replace fluid needle packing set or tighten fluid needle packing screw. c. Tighten or replace fluid nozzle.
Crescent	Material build-up on air cap.	Clean air cap with proper objects. Clogged air holes must not be cleaned with metal objects.
Heavy top or bottom	a. Material build-up on air cap. b. Dirty or damaged fluid nozzle.	a. Clean or replace air cap. b. Clean or replace fluid nozzle.
Split	a. Material too thin or not enough. b. Atomizing air pressure too high.	a. Increase material viscosity. b. Reduce air pressure.
Heavy center	a. Material too thick or too much. b. Atomizing air pressure too low.	a. Reduce material viscosity. b. Increase air pressure.
Gun drips from fluid nozzle	a. Obstructions between fluid nozzle and fluid needle. b. Worn fluid nozzle or needle.	a. Clean fluid needle and fluid nozzle in thinner. b. Replace parts.
Gun leaks from needle packing screw	a. Loose fluid needle packing screw. b. Dry or worn fluid needle packing.	a. Tighten fluid needle packing screw, check fluid needle for free movement. b. Lubricate or replace needle packing.