

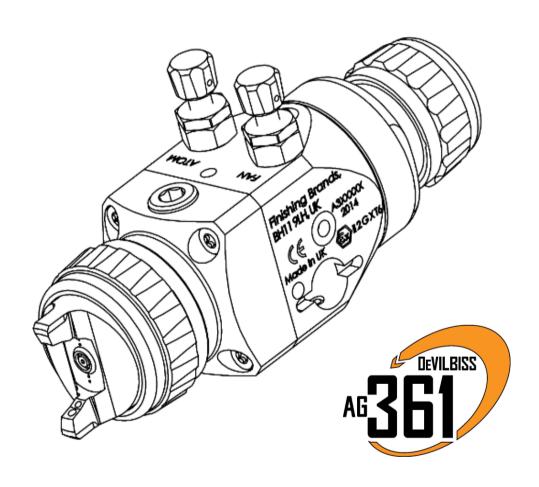
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# **DEVILBISS AG360**

**Series: AG361 & AG361E** 

# Low Pressure, Air Atomisation Automatic Spray Guns.

**(€ (Ex) II 2 G X T6** 



# **IMPORTANT! DO NOT DESTROY**

It is the Customer's responsibility to have all operators and service personnel read and understand this manual.

Contact your local DeVilbiss representative for additional copies of this manual.

#### **FUNCTIONAL DESCRIPTION**

FΝ

The AG361 and AG361E low pressure air atomising spray guns are designed to be cost effective guns with maximum control and serviceability.

The AG361 is intended for most types of general industrial coating and fine finishing operations, suitable for both waterbased and solventbased applications.

The AG361E is designed for the application of specialised waterbased ceramic and enamel coatings for sanitaryware and vitreous markets.

Guns are available with a range of Conventional, Trans-Tech (High Efficiency) and HVLP atomisation air caps, to give a choice of atomisation and Transfer Efficiency parameters. They are designed as a flexible solution for the modern coating applicator with multiple accessories available, to futher optimise the process.

SPECIFICATIONS					
FLUID AND AIR INLET PRESSURES (See pages 8 & 9)					
P1 = Max Air Input Pressure	7 Bar [102 psi]				
P2 = Max Fluid Input Pressure	7 Bar [102 psi]				
P3 = Cylinder Air Pressure	4 - 7 Bar [58 psi - 102psi]				
Sound Pressure Level:	Available on request				
Sound Power Level:	Available on request				

ENVIRONMENTAL	
Max Ambient Operating Temperature	40°C Nominal [104°F]

MATERIALS OF CONSTRUCTION					
Gun Head and Fluid Passageways	Stainless Steel				
Gun Body Material	Quickclean™ Coated Aluminium				
Air Cap Material	Electroless Nickel Plated Brass				
	Stainless Steel				
Fluid Tip and Needle Construction	Nitride Coated Stainless Steel				
	Tungsten Carbide				
Seals and O-Rings	HDPE, Viton Extreme				

CONNECTIONS	
P1 = Air Inlet Size	1/4" G
P2 = Fluid Inlet Size	1/4" G
P3 = Cylinder Inlet	1/8" G

WEIGHT	
Gun Weight	670g

DIMENSIONS (See page 20)	
L x H x W mm	146 x 66 (Including Valves) x 44

Product Description / Object of Declaration: AG361, AG361E

**This Product is designed for use with:**Solvent and water based materials

**Suitable for use in hazardous area:** Zone 1 / Zone 2

**Protection Level:** II 2 G X T6

Notified body details and role: TRAC Global Ltd (0891)

Lodging of Technical file

**This Declaration of conformity /** Finishing Brands UK Ltd, **incorporation is issued under the sole** Ringwood Road,

**incorporation is issued under the sole responsibility of the manufacturer:**Ringwood Road,
Bournemouth, BH11 9LH. UK

# **EU Declaration of Conformity**





The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Machinery Directive 2006/42/EC

ATEX Directive 2014/34/EU

by complying with the following statutory documents and harmonised standards:

EN ISO 12100:2010 Safety of Machinery - General Principles for Design

BS EN 1953:2013 Atomising and spraying equipment for coating materials - Safety requirements

EN 14462:2005+A1:2009 Surface treatment equipment - Noise test code for surface treatment equipment including its ancillary handling equipiment - Accuracy grades 2 and 3

EN 1127-1:2011 Explosive atmospheres - Explosion prevention - Basic concepts

EN 13463-1:2009 Non electrical equipment for use in potentially explosive atmospheres - Basic methods and requirements

HVLP and High Efficiency products comply with the requirements of PG6 from the EPA guidelines and offer greater than 65% transfer efficiency.

Providing all conditions of safe use / installation stated within the product manuals have been complied with and also installed in accordance with any applicable local codes of practice.

Signed for and on behalf of Finishing Brands

UK Ltd:



D Smith 24/8/16

Director of Sales (EMEA)

In this part sheet, the words WARNING, CAUTION and NOTE are used to emphasise important safety information as follows:

<b>MARNING</b>	<b>A</b> CAUTION	NOTE					
Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.	Hazards or unsafe practices which could result in minor personal injury, product or property damage.	Important installation, operation or maintenance information.					
<u></u> <b>WARNING</b>							

Read the following warnings before using this equipment.



SOLVENTS AND COATING MATERIALS. Can be highly flammable or combustible when sprayed. Always refer to the coating material supplier's instructions and safety sheets before using this equipment.



INSPECT THE EQUIPMENT DAILY. Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



READ THE MANUAL. Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual. Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation and house-keeping of working areas.



EQUIPMENT MISUSE HAZARD. Equipment misuse can cause the equipment to rupture, malfunction or start unexpectedly and result in serious injury.



FIRE AND EXPLOSION HAZARD. Never use 1,1,1-Trichloroethane, Methylene Chloride, other Halogenated Hydrocarbon solvents or fluids containing such solvents in equipment with aluminium wetted parts. Such use could result in a serious chemical reaction, with the posibility of explosion. Consult your fluid suppliers to ensure that the fluids being used are compatible



GLOVES. Must be worn when spraying or cleaning the equipment.



WEAR SAFETY GLASSES. Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



STATIC CHARGE. Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or elecrtic shock and other serious injury.



WEAR RESPIRATOR. The use of respiratory protective equipment is recommended at all times. The type of equipment must be compatible with the material being sprayed.



TOXIC VAPOURS. When sprayed, certain materials may be poisonous, create irritation, or are otherwise harmful to health. Always read all labels, safety sheets and follow any recommendations for the material before spraying. If in doubt contact your material supplier.



NEVER MODIFY THE EQUIPMENT. Do not modify the equipment unless the manufacturer provides written approval.



LOCK OUT / TAG-OUT. Failure to de-energise, disconnect, lock out and tagout all power sources before performing equipment maintenance could cause serious injury or death.



PROJECTILE HAZARD. You may be injured by venting liquids or gases that are released under pressure, or flying debris.



NOISE LEVELS. The A-weighted sound level of pumping and spray equipment may exceed 85 dB(A) depending on equipment settings. Actual noise levels are available on request. It is recommended that ear protection is worn at all



PRESSURE RELIEF PROCEDURE. Always follow the pressure relief procedure in the equipment instruction manual.





KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY.



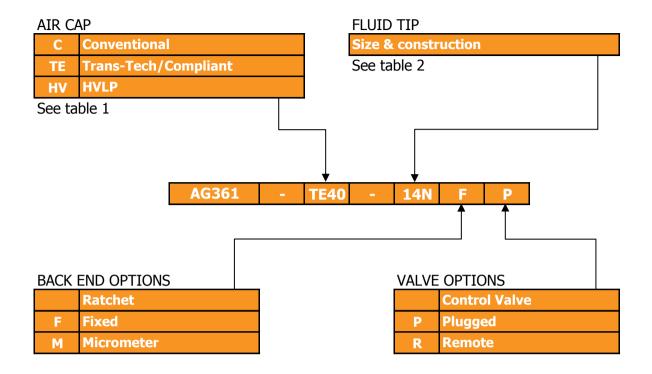
HIGH PRESSURE CONSIDERATION. High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the gun, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury.



OPERATOR TRAINING. All personnel must be trained before operating finishing equipment.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.

# **AG361 GUN PART NUMBER FORMAT & PART SELECTION GUIDE**



<b>TABLE</b>	1					
A	G361 AIR CAP PE	RFORMANCE	GUIDE			
Air Cap & Type		Part Number	Part Number   Air Consumption		Recommended Typical Fluid r Inlet Pressure Flow*	
C1	Conventional	PROC-120-C1-K	300 L/min [10.7 cfm]	3 Bar [45 psi]	150-250 ml/min	270mm
C2	Conventional	PROC-120-C2-K	290 L/min [10.3 cfm]	3 Bar [45 psi]	100-350 ml/min	270mm
C3	Conventional	PROC-120-C3-K	440 L/min [15.7 cfm]	3 Bar [45 psi]	250-600 ml/min	360mm
TE10	Trans-Tech/Compliant	PRO-100-TE10-K	255 L/min [9.1 cfm]	2 Bar [30 psi]	150-200 ml/min	300mm
TE20	Trans-Tech/Compliant	PRO-100-TE20-K	325 L/min [11.6 cfm]	2 Bar [30 psi]	150-200 ml/min	290mm
TE30	Trans-Tech/Compliant	PRO-100-TE30-K	375 L/min [13.3 cfm]	2 Bar [30 psi]	200-300 ml/min	300mm
TE40	Trans-Tech/Compliant	PRO-100-TE40-K	355 L/min [12.6 cfm]	2 Bar [30 psi]	250-400 ml/min	380mm
TE50	Trans-Tech/Compliant	PRO-100-TE50-K	425 L/min [15.1 cfm]	2 Bar [30 psi]	250-400 ml/min	300mm
HV30***	HVLP	PRO-100-HV30-K	450 L/min [16.0 cfm]	1.75 Bar [26 psi]	160-200 ml/min	315mm

<sup>\*</sup> Flow rates may vary according to paint/material and pressure used.

<sup>\*\*</sup> Fan pattern size @ 200mm distance.

<sup>\*\*\*</sup> HV30 (HVLP) operates at 0.7 Bar [10 psi] atomisation air pressure at the cap.

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# TABLE 2

AG361	AG361 RECOMMENDED FLUID TIP / AIR CAP COMBINATIONS											
Air Cap	Atomisation Type	0.5mm	0.7mm	0.85mm	1.0mm	1.2mm	1.4mm	1.6mm	1.8mm	2.0mm	2.2mm	2.8mm
C1	Conventional	-	-	SN	SN	SN	SN	SN	SN	-	-	-
C2	Conventional	-	-	SN	SN	SN	SN	SN	SN	-	-	-
C3	Conventional	-	-	SN	SN	SN	SN	SN	SN	-	-	-
For Conventional tip & needle part numbers, see table 3.												
TE10	Trans-Tech	-	-	SN	SN	SN	SN	SN	SN	SN	SN	-

| TE10  | Trans-Tech | 1 | - | SN | - |
|-------|------------|---|---|----|----|----|----|----|----|----|----|---|
| TE20  | Trans-Tech | 1 | - | SN | - |
| TE30  | Trans-Tech | - | - | SN | - |
| TE40  | Trans-Tech | 1 | - | SN | - |
| TE40R | Trans-Tech | - | , | SN | - |
| HV30  | HVLP       | - | 1 | SN | - |

For Trans-Tech / HVLP tip & needle part numbers, see table 4.

PROC-215-18-K

PRO-205-22-K

- S = High quality stainless steel tips & needles available in this type & size.
- N = Nitride hardened tips & needles also available in this type & size.

# TABLE 3

#### AG361 **CONVENTIONAL FLUID TIPS & NEEDLES** Stainless Steel Nitride Hardened Fluid Tip Size Needle Needle Fluid Tip Fluid Tip 0.85 PROC-215-085-K PROC-215N-085-K SPA-361-085-10-K SPA-361N-085-10-K PROC-215-10-K PROC-215N-10-K 1.0 1.2 PROC-215-12-K PROC-215N-12-K SPA-361-12-14-K SPA-361N-12-14-K 1.4 PROC-215-14-K PROC-215N-14-K PROC-215-16-K PROC-215N-16-K SPA-361-16-18-K SPA-361N-16-18-K

#### TABLE 4

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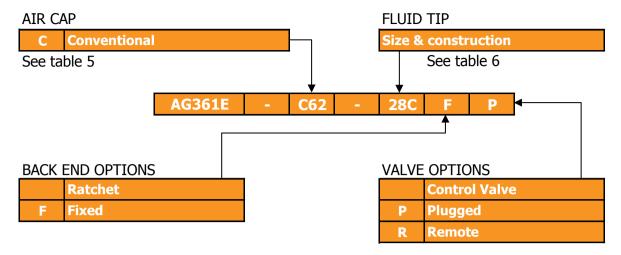
	Stainle	ss Steel	Nitride Hardened		
Fluid Tip Size	Fluid Tip	Needle	Fluid Tip	Needle	
0.85	PRO-205-085-K	SPA-361-085-10-K	PRO-205N-085-K	SPA-361N-085-10-K	
1.0	PRO-205-10-K	SPA-301-063-10-K	PRO-205N-10-K	SPA-301N-063-10-K	
1.2	PRO-205-12-K	SPA-361-12-14-K		SPA-361N-12-14-K	
1.4	PRO-205-14-K	SPA-301-12-14-K	PRO-205N-14-K	5PA-301N-12-14-K	
1.6	PRO-205-16-K	SPA-361-16-18-K	PRO-205N-16-K	SPA-361N-16-18-K	
1.8	PRO-205-18-K	3FA-301-10-10-K	PRO-205N-18-K	3FA-301N-10-10-K	
2.0	PRO-205-20-K	SPA-361-20-22-K	PRO-205N-20-K	SPA-361N-20-22-K	
2.2	DDG 205 22 1/	3FA-301-20-22-K	DD0 205N 22 K	3FA-301N-20-22-K	

IS-TECH / HVLP FLUID TIPS & NEEDLES

PRO-205N-22-K

PROC-215N-18-K

#### **CERAMIC & ENAMEL INDUSTRY GUN PART NUMBER FORMAT & PART SELECTION GUIDE**



<b>TABL</b>	TABLE 5 - AG361E AIR CAP PERFORMANCE GUIDE										
Air Cap & Type		Part Number	Air Consumption	Recommended Air Inlet Pressure	Typical Fluid Flow*	Typical Fan Pattern Size**					
C62	Conventional	PROC-120-C62-K	430 [15.2 cfm]	3 Bar [45 psi]	< 3.5 L/min	490mm					
C64	Conventional	PROC-120-C64-K	400 [14.1 cfm]	3 Bar [45 psi]	< 2.5 L/min	430mm					
C67	Conventional	PROC-120-C67-K	425 [15.0 cfm]	3 Bar [45 psi]	< 2.0 L/min	500mm					

<sup>\*</sup> Flow rates may vary according to paint/material and pressure used.

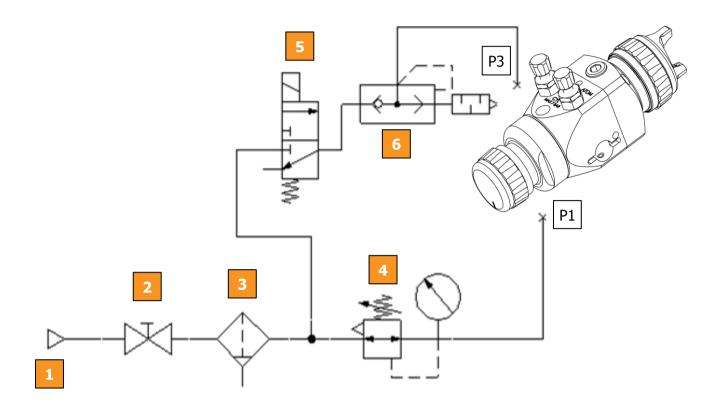
<sup>\*\*</sup> Fan pattern size @ 300mm distance.

TABLE 6 - AG361E FLUID TIP / AIR CAP COMBINATIONS												
Air Cap	Atomisation Type	0.5mm	0.7mm	0.85mm	1.0mm	1.2mm	1.4mm	1.6mm	1.8mm	2.0mm	2.2mm	2.8mm
C62	Conventional	-	-	-	-	-	-	-	-	-	-	SNC
C64	Conventional	-	-	-	-	-	-	-	-	-	SNC	-
C67	Conventional	-	-	-	-	-	SN		SNC	-	-	-

For Ceramic tip & needle part numbers, see table 7.

- S = High quality stainless steel tips & needles available in this type & size.
- N = Nitride hardened tips & needles also available in this type & size.
- C = Tungsten carbide tips & needles also available in this type & size.

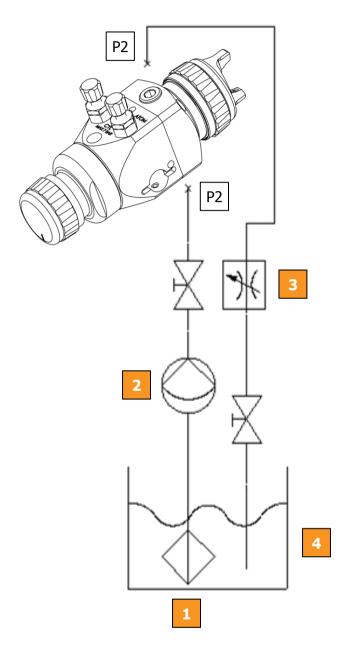
TABLE 7 - AG361E CERAMIC FLUID TIPS & NEEDLES						
	Stainless Steel		Nitride Hardened		Tungsten Carbide	
Fluid Tip Size	Fluid Tip	Needle	Fluid Tip	Needle	Fluid Tip	Needle
1.4	PRO-250-14-K		PRO-250N-14-K		-	-
1.8	PRO-250-18-K	SPA-360-18-22-K	PRO-250N-18-K	SPA-360N-18-22-K	PRO-250C-18	SPA-360C-18-22
2.2	PRO-250-22-K		PRO-250N-22-K		PRO-250C-22	SPA-300C-16-22
2.8	PRO-250-28-K	SPA-360-28-K	PRO-250N-28-K	SPA-360N-28-K	PRO-250C-28	SPA-360C-28



1	Compressed air take-off
2	Shut-off valve
3	Air filter
4	Air regulator & gauge
5	3/2 solenoid valve, normally closed
6	Quick exhaust valve & silencer
P1	CAP - 1/4" G
Р3	CYL - 1/8" G

# **!** WARNING

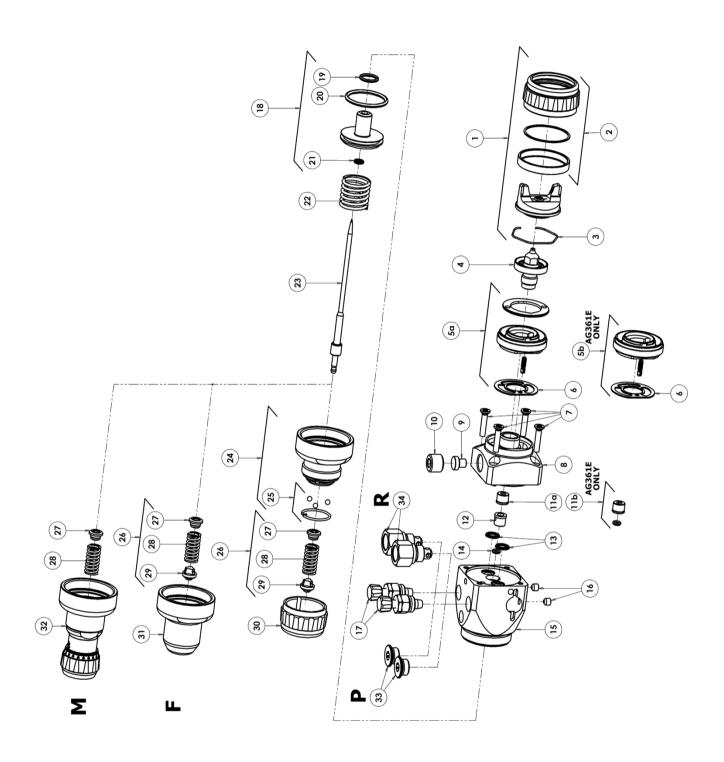
The spray gun must be earthed to dissipate any electrostatic charges which may be created by fluid or air flows. This can be achieved through the spray gun mounting, or conductive air/fluid hoses. Electrical bond from the spray gun to earth should be checked and a resistance of less than 10<sup>6</sup> Ohms is required.



1	Fluid filter
2	Fluid supply
3	Fluid restrictor valve
4	Fluid reservoir
P2	Fluid - 1/4" G

# NOTE

Protective coatings have been used for storage protection. Flush the equipment fluid passageways with appropriate solvent before use.



# **PARTS LIST**

REF.	PART No.	DESCRIPTION	ASSEMBLY QTY.
1	SEE TABLE	AIR CAP & RETAINING RING	1
2	PRO-405-K	RETAINING RING SUB ASSEMBLY	1
3	JGA-156-K	SPRING CLIP (KIT OF 5)	1
4	SEE TABLE	FLUID TIP	1
5a	SN-69-K	SPRAYHEAD & PIN ASSY	1
5b	SN-69-US-K	SPRAYHEAD & PIN ASSY (AG361E ONLY)	1
6	SN-18-1-K2	GASKET (KIT OF 2)	1
7	S-14192-K4	TORX SCREW (KIT OF 4)	4
8	SPA-150-K	HEAD	1
9	SPA-158-K	PLUG	1
10	S-18226	PLUG	1
11a	SPA-159-K	NEEDLE PACKING	1
11b	SPA-420-K	CERAMIC PACKING ASSY (AG361E ONLY)	1
12	SPA-157-K	PACKING SPACER	1
13	SPA-29X-K4	O RING (KIT OF 4)	2
14	SPA-180X-K2	O RING (KIT OF 2)	1
15	SPA-151-K	AG361 BODY	1
16	S-14193	HEXAGON SOCKET SET SCREW	2
17	SPA-414-K	CONTROL VALVE	2
18	SPA-6X-K	PISTON & SEAL KIT	1
19	S-28220X-K2	O RING (KIT OF 2)	1
20	S-28225X-K2	O RING (KIT OF 2)	1
21	S-28219X-K4	O RING (KIT OF 4)	1
22	SPA-13	PISTON SPRING	1
23	SEE TABLE	FLUID NEEDLE	1
*24	SPA-415-K	REAR HOUSING ASSEMBLY	1
25	SPA-KK-1	RING AND BALL KIT	1
26	SPA-421-K	NEEDLE SPRING KIT	1
27	SPA-422-K2	SPRING BUTTON (KIT OF 2)	1
28	SPA-31	NEEDLE SPRING	1
29	SPA-165-K2	SPRING BUTTON (KIT OF 2)	1
*30	SPA-166-K	ADJUSTING KNOB	1
31	SPA-167-K	FIXED REAR HOUSING	1
32	SPA-417-K	MICROMETER ASSEMBLY	1
33	SPA-111-K2	BLANKING PLUG	2
34	SPA-22-K2	REMOTE CONNECTOR	2

<sup>\*</sup> PART OF KIT SPA-426-K

#### TYPICAL SETTING

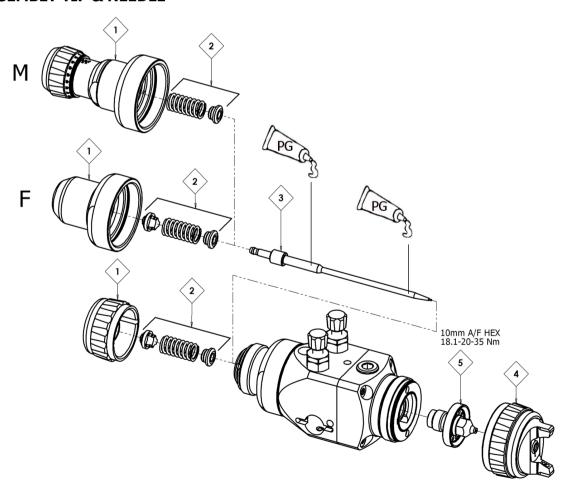
- 1. The ATOM air valve controls the length of the fan pattern, the FAN valve controls the shape of the pattern. To increase the air pressure, turn air control valves anti-clockwise and to reduce the pressure turn clockwise.
- 2. Fluid flow can be adjusted with the needle adjustment knob, fluid flow is increased when you turn the knob anti-clockwise.

# **TYPICAL START-UP SEQUENCE**

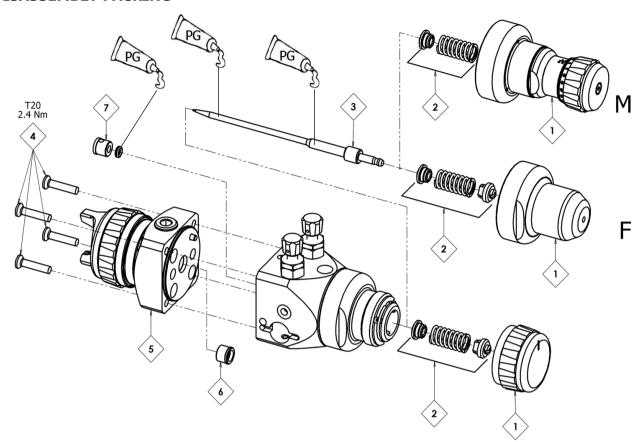
- 1. Turn the needle adjustment knob anti-clockwise until the needle is fully open.
- 2. Turn the FAN and ATOM air valves anti-clockwise to be fully open.
- 3. Trigger the gun and adjust the fluid supply pressure, to obtain the recommended fluid flow shown in the air cap performance guide table.
- 4. Trigger the gun and set the gun inlet air pressure regulator, to achieve the recommended start pressures, shown in the air cap performance guide table.
- 5. Test spray if the finish is too dry or fine, reduce the air flow by reducing the air inlet pressure or by screwing the ATOM valve in clockwise. Alternatively increase the fluid flow using the fluid supply pressure.
- 6. Test spray if the finish is too wet, reduce the fluid supply pressure to reduce the fluid flow. Alternatively increase the air inlet pressure to increase atomising pressure.
- 7. Use the needle adjustment knob for final fine tuning of the fluid flow.
- 8. The pattern size can be reduced by turning adjusting valve clockwise. A reduction in the spray fan may require a reduction in fluid flow.
- 9. The spray pattern will be optimised when the spray gun is perpendicular to the target.
- 10. The recommended spray distance is 150-200mm.[6-8"]
- 11. Always turn off air and fluid supply, relieve pressure and clean down when gun is not in use.

KEY - MAIN	KEY - MAINTENANCE SYMBOLS				
(#)	Order for disassembly  (reverse for assembly)				
#	Item Number				
PG	Petroleum Grease/Jelly				
TS	Thread Sealant				
TLG	Thread Locker				

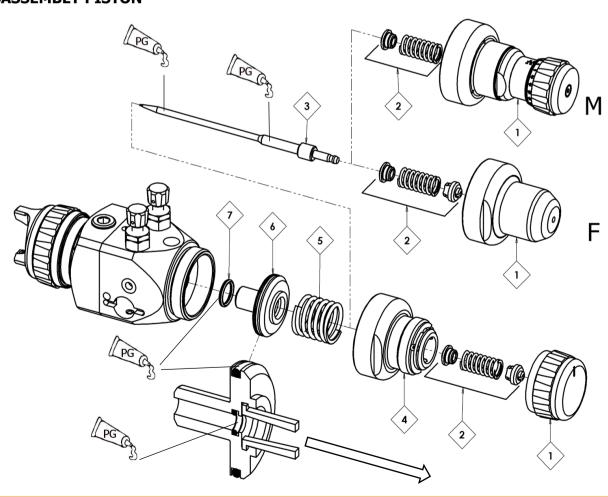
# **DISASSEMBLY TIP & NEEDLE**



# **DISASSEMBLY PACKING**



# **DISASSEMBLY PISTON**



# TROUBLESHOOTING MECHANICAL PERFORMANCE

CAUSE	CORRECTION
No air pressure at gun.	Check air supply and air line.
Fluid needle adjustment knob not open enough.	Open fluid needle adjustment knob.
Incorrect needle fitted to gun.	Check fluid tip/needle selection chart and fit correct item.
Excessive needle wear.  Replace with new needle wear.	Replace with new needle.
Excessive fluid tip wear.	Replace with new fluid tip.
Fluid tip not fitted correctly in gun head.	Tighten.
Fluid tip/needle leakage.	Check for damage or blockage.
Fluid tip not fitted correctly in gun head.	Tighten.
Fluid tip/needle leakage.	Check for damage or blockage.
Damaged air cap holes.	Replace with new air cap.
Gradual build-up of bounce-back on gun head.	Thoroughly clean.
Fluid tip or sprayhead incorrectly fitted.	Remove, check components for damage and refit correctly.
	No air pressure at gun.  Fluid needle adjustment knob not open enough.  Incorrect needle fitted to gun.  Excessive needle wear.  Excessive fluid tip wear.  Fluid tip not fitted correctly in gun head.  Fluid tip/needle leakage.  Fluid tip/needle leakage.  Damaged air cap holes.  Gradual build-up of bounce-back on gun head.  Fluid tip or sprayhead incorrectly

When removing air cap from retaining ring, do not remove the ring seat from the retaining ring. Damage to the parts may occur. Simply wipe parts clean and reassemble with new or clean air cap.

FLUID FAULTS	CAUSE	CORRECTION
1 LOID TAGETS	Fluid tip internal seat scored damaged or worn.	Replace.
	Fluid needle external profile damaged or worn.	Replace.
Slow fluid leak from fluid tip and needle seat.	Contamination on needle or tip mating surfaces preventing good seal.	Thoroughly clean.
	Incorrect fluid tip for fluid needle fitted to gun.	Check tiip/needle selection chart and fit correct item.
	Sluggish needle.	Lubricate packing.
	Tight packing nut.	Adjust.
Major fluid leak or fluid jetting from fluid tip and needle seat.	Contamination on needle or tip mating surfaces preventing good seal.	Remove tip and needle and thoroughly clean.
nad up and recale seat.	Incorrect fluid tip for fluid needle fitted to gun.	Check tiip/needle selection chart and fit correct item.
Slow fluid leak from needle packing, four possible places.		
	Fluid needle packing worn or loose.	Tighten or replace as necesarry.
AIR FAULTS	CAUSE	CORRECTION
Small air leak from air cap when gun	Piston contaminated and not correctly seating.	Remove piston and thoroughly clean valve shaft and seating surfaces.
is not triggered.	Piston seal damaged or missing.	Replace.

# TROUBLESHOOTING SPRAY PERFORMANCE

CONDITION	CAUSE	CORRECTION
Heavy top or bottom pattern.	Material build-up on air cap, plugged horn holes, centre holes or jets.	Soak cap or tip in suitable solvent and thoroughly clean.
	Material build-up on fluid tip exterior or partially plugged fluid tip.	Replace fluid tip or air cap if necesarry.
	Fluid tip or cap dirty or damaged.	Replace fluid tip or air cap if necesarry.
Heavy right or left side pattern.	Left or right side horn holes plugged.	Soak cap or tip in suitable solvent and thoroughly clean.
	Dirt or damage on left or right side of fluid tip exterior.	Replace fluid tip or air cap if necesarry.

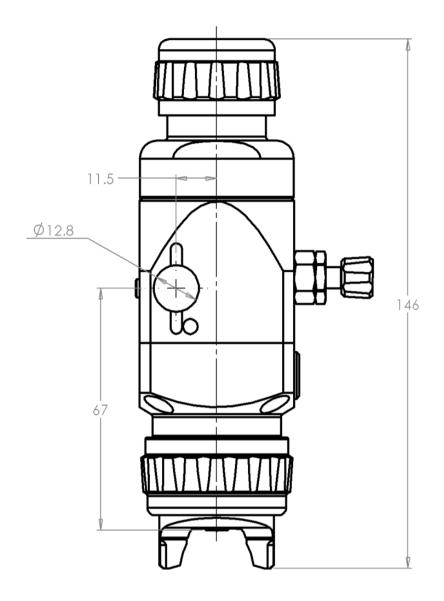
Remedies for the top-heavy, bottom-heavy, right-heavy and left-heavy patterns.

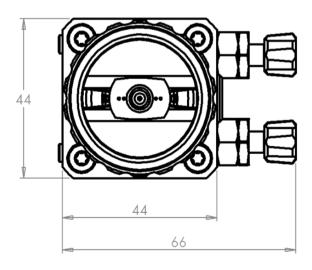
Determine if the obstruction is on the air cap or the fluid tip. Do this by making a test spray pattern. Then, rotate the cap one-half turn and spray another pattern. If the defect is inverted, obstruction is on the air cap. Clean the air cap as previously instructed. Also check for dried paint just inside the cap centre hole opening, remove by washing with solvent.

If the defect is not inverted, it is on the fluid tip. Clean tip. If problem persists, renew tip.

Heavy centre pattern.		
neavy centre pattern.	Pattern adjustment valve set too low.	Turn out counter clockwise to achieve correct pattern.
	Too much material.	Reduce fluid flow by turning fluid needle adjusting screw clockwise. Reduce fluid pressure.
	Material too thick.	Thin to correct consistency.
	Atomising air pressure too low.	Increase air pressure.
Intermittent or 'fluttering' spray fan.	Loose fluid tip.	Tighten.
	Fluid tip not seated correctly in gun head.	Remove fluid tip, clean components, check cone seating on tip and gun for damage or contamination.
	Partially obstructed fluid passage or hose.	Clean or replace.
Split spray pattern	Not enough material flow.	Increase fluid flow by changing fluid tip size, opening needle control knob or increase fluid pressure on pressure feed container.
	Too high horn pressure.	Reduce air pressure by rotating pattern control valve clockwise.
	Too much air for fluid quanitity used.	Reduce input air pressure.

E		EIN
Ball end heavy pattern.	Too much fluid flow.	Change fluid tip for smaller size or change air cap for different specification air cap.
	Too much atomisation air pressure.	Reduce air pressure.
Excessive bounce-back.	Gun too far from surface.	Check distance (normally 150-200mm).
	Too much fluid flow.	Adjust gun or reduce fluid pressure.
Runs and sags.	Material too thin.	Mix properly or apply light coats/reduce fluid flow.
	Gun tilted at an angle.	Mount gun at right angle to work.
	Gun too far from surface.	Check distance.
Thin conduces the later in a	Too much air pressure.	Reduce air pressure and check spray pattern.
Thin, sandy coarse finish drying before it flows out.	Fluid flow too low.	Increase fluid flow by changing fluid tip size, supply pressure or turning needle control knob counter clockwise.





# **ACCESSORIES**

PART No.	DESCRIPTION	
SPA-417-K	Micrometer needle adjustment assembly.	
SPA-167-K	Fixed needle position end cap.	
SPA-426-K	Ratchet needle adjustment assembly.	
SPA-22-K2	Remote atomisation & fan air control fittings. Replaces items (17) see exploded view.	
SPA-111-K2	Atomisation & fan blanking plugs, replaces items (17) see exploded view.	
SPA-414-K	Control Valve	
AGGS-33	Mounting bar.	
SS-659-CD	Mounting bar nut.	

ΕN

**NOTES** 

#### **WARRANTY POLICY**

DeVilbiss products are covered by Finishing Brands one year materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Finishing Brands, will void all warranties. For specific warranty information please contact the closest Finishing Brands location listed below.

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