

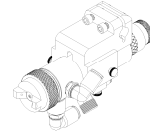
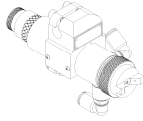
1172 Fendt Drive, Howell, MI 48843
Phone: (517) 548-9096 Fax: (517) 548-9328

MAINTENANCE PROCEDURES

MODELS: #300M / #300M-A / #300M-AR / #300M-NF

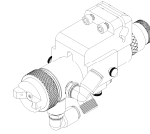
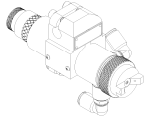
REBUILDING GUN (REFER TO SCHEMATIC)

1. Flush gun thoroughly
2. Remove air cap and tip from front of gun. Remove or cut (#302) tip gasket off tip.
3. Remove (#329) ratchet
4. Remove both (#313) piston spring and (#312) needle spring
5. Remove the Needle from housing. If (#319) piston does not follow, pull out with curved dental pick or re-insert needle, cover housing with cloth in palm and actuate piston with compressed air.
6. Remove (#315) leather packing from housing by unscrewing (#310) packing screw and remove (#315) leather packing carefully with a dental pick.
7. Using a 11/16" wrench, remove (#317) fluid tube nut.
8. Remove (#322 or #322-A) distributor.
 - 8a. For #322: Remove (#327) fan control assembly by removing (#325) fan control screw.
 - 8b. For #322-A: Remove atomizing fitting then insert a screwdriver into the atomizing hole and gently push the (#322-A) distributor forward until you can grab it from the front and remove it.
9. Remove (#366) fluid tube insert with a 1/2" wrench and (#367) crush washer. If (#367) crush washer does not just fall out you may need to use a curved dental pick to pull it out.
10. Push the (#368) fluid tube out by placing your finger in the belly cut between the packing and wall of the gun body and press forward.
11. Determine which packing you have installed. If you see a white hex, you have the (#303) one-piece fluid packing, proceed to step 11a. If you see a gold hex you have the (#314) packing assembly, proceed to step 11b.
 - 11a. Unscrew (#303) one-piece fluid packing.
 - 11b. Unscrew (#311) packing screw from (#368) fluid tube. Using a curved dental pick, remove all (4) pieces, (1) brown leather packing and (3) white Teflon packings, of (#314) packing assembly.
12. Clean inside of (#368) fluid tube and (#366) fluid tube insert with 1/2" diameter bottle brush and make sure tube is free of debris and (#319) piston chamber is also clean.
13. Discard the following items with the new items from the rebuild kit:
 - a) (#302) Tip gasket
 - b) (#303) One-piece fluid packing or (#314) packing assembly & (#311) packing nut
 - c) (#315) leather packing
 - d) (#305) O-ring for piston
 - e) (#312) Needle spring
 - f) (#313) Piston spring



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- g) (#367) Crush washer
- h) (#319) Piston
- 14. When (#310) packing screw is tightened, (#315) leather packing should be firm against the needle. However, if 35 Lbs. pressure does not trigger (#319) piston, then loosen (#315) leather packing slightly.
- 15. Replace packing.
 - 15a. Screw (#303) one-piece fluid packing into (#368) fluid tube by hand. Apply non-silicone-based lubricant to old needle and slide in and out of (#303) packing.
 - 15b. Using an old needle, place (#311) packing nut onto old needle followed by the (#314) fluid packing assembly with the leather packing towards the (#311) packing nut. Peel off outer wax coating from (#314) packing assembly and insert needle into back of (#368) fluid tube. Carefully push all (4) pieces of packing into (#368) fluid tube using the (#311) packing nut and loosely tighten. Remove needle and apply non-silicone based lubricant and re-insert into (#311) packing nut and remove. Leave (#311) packing nut loose until the final step.
- 16. Re-insert (#368) fluid tube into body and align inlet with hole in body. Place (#367) crush washer into (#368) fluid tube, screw in (#366) fluid tube insert and tighten with ½” wrench.
- 17. Re-insert distributor and fan control assembly or atomizing fitting.
- 18. Apply non-silicone-based lubricant onto inner rear wall of body and insert new (#319) piston with new (#305) O-ring with small diameter facing the rear of the body.
- 19. Apply non-silicone-based lubricant to needle and insert into gun. Install tip into front of (#368) fluid tube. Insert new (#312 and #313) springs and (#329) ratchet onto back of body.
- 20. Apply non-silicone based lubricant to exposed needle between (#303) one-piece packing or (#311) packing nut and body.
 - 20a. For #303: Tighten one-piece packing until just tight (**overtightening will cause hex to break off**).
 - 20b. For #311: Tighten hex and actuate trigger with compressed air to make sure needle moves freely until needle stops closing, then loosen hex until needle snaps closed.

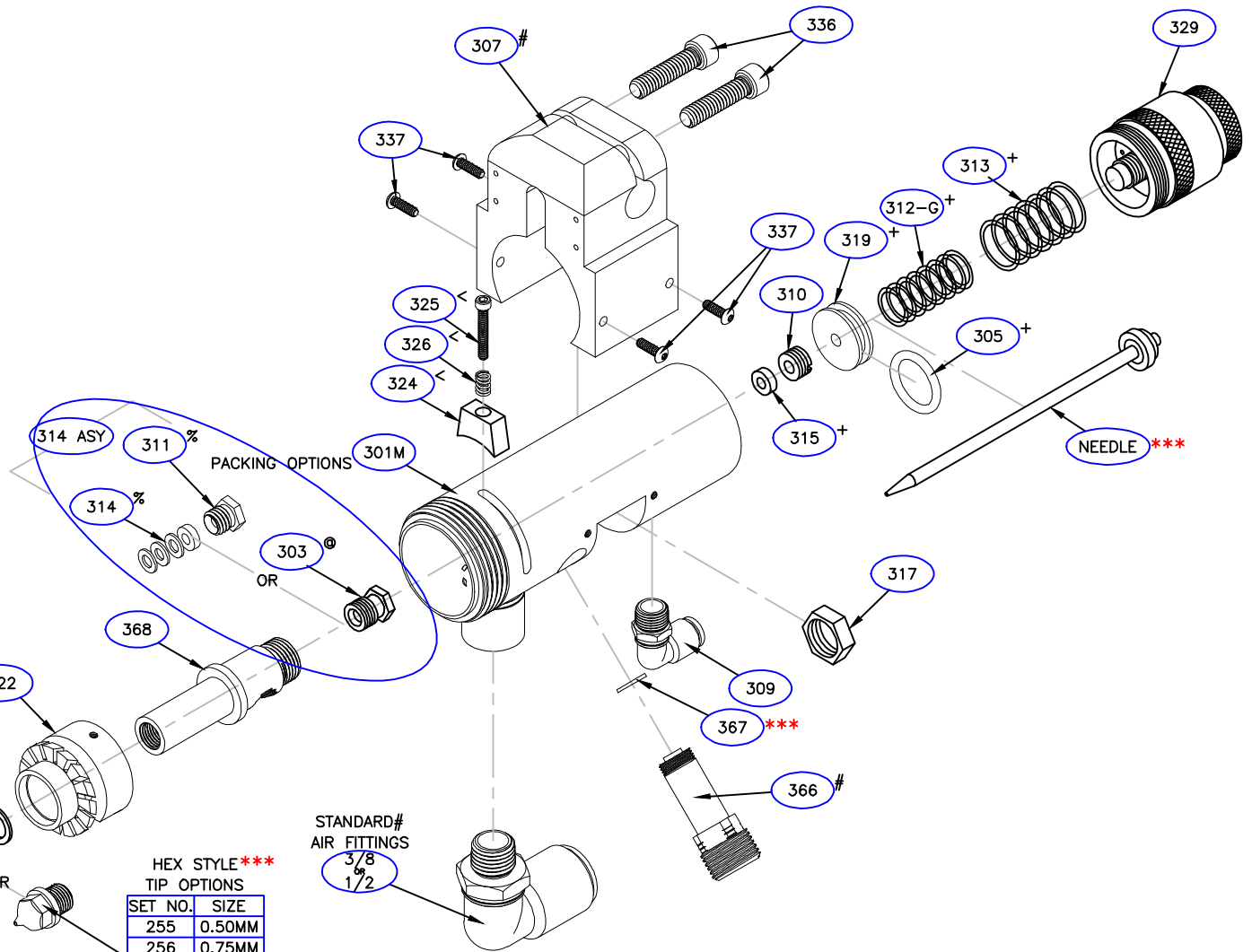


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- **NOTE:** Please do not use metal or rigid instruments to clean gun parts – this may cause permanent damage.
- **NOTE:** Fluid control in the low range (1 to 15 Lbs.). A lack of control will cause gun fluid fluctuation as well as premature packing wear.
- **NOTE:** A light grade lubricant that **DOES NOT** contain silicone should be used when reassembling gun packings, O-rings, fluid needles, and all threaded parts. Petroleum jelly is preferred.

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322	DISTRIBUTOR
1	368	FLUID TUBE
1	303	PACKING
1	301M	GUN BODY
1	367	CRUSH WASHER
1	366	FLUID TUBE INSERT
1	317	FLUID TUBE NUT
1	324	FAN CONTROL KNOB
1	326	FAN CONTROL SPRING
1	325	FAN CONTROL SCREW
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307	NYLON GUN BRACKET
2	336	GUN MOUNTING SCREWS
4	337	BRACKET MOUNTING SCREWS

+/@ = INCLUDED IN REBUILD KIT TSM-350-G-1***
 < = SOLD AS TSM-327 SET ONLY ***
 +/% = INCLUDED IN REBUILD KIT TSM-350-G***



WINGED STYLE ***
TIP OPTIONS

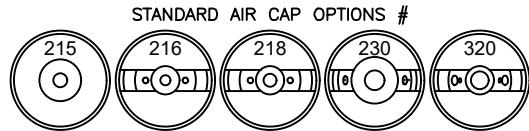
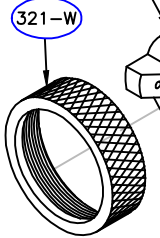
SET NO.	SIZE
120	1.00MM
121	1.25MM
122	1.50MM
129	1.75MM
131	2.00MM
139	2.50MM

STANDARD ***
AIR CAPS #

215
216
218
230
320

HEX STYLE ***
TIP OPTIONS

SET NO.	SIZE
255	0.50MM
256	0.75MM
257	1.00MM
259	1.25MM
260	1.50MM



MODEL #: **300M**

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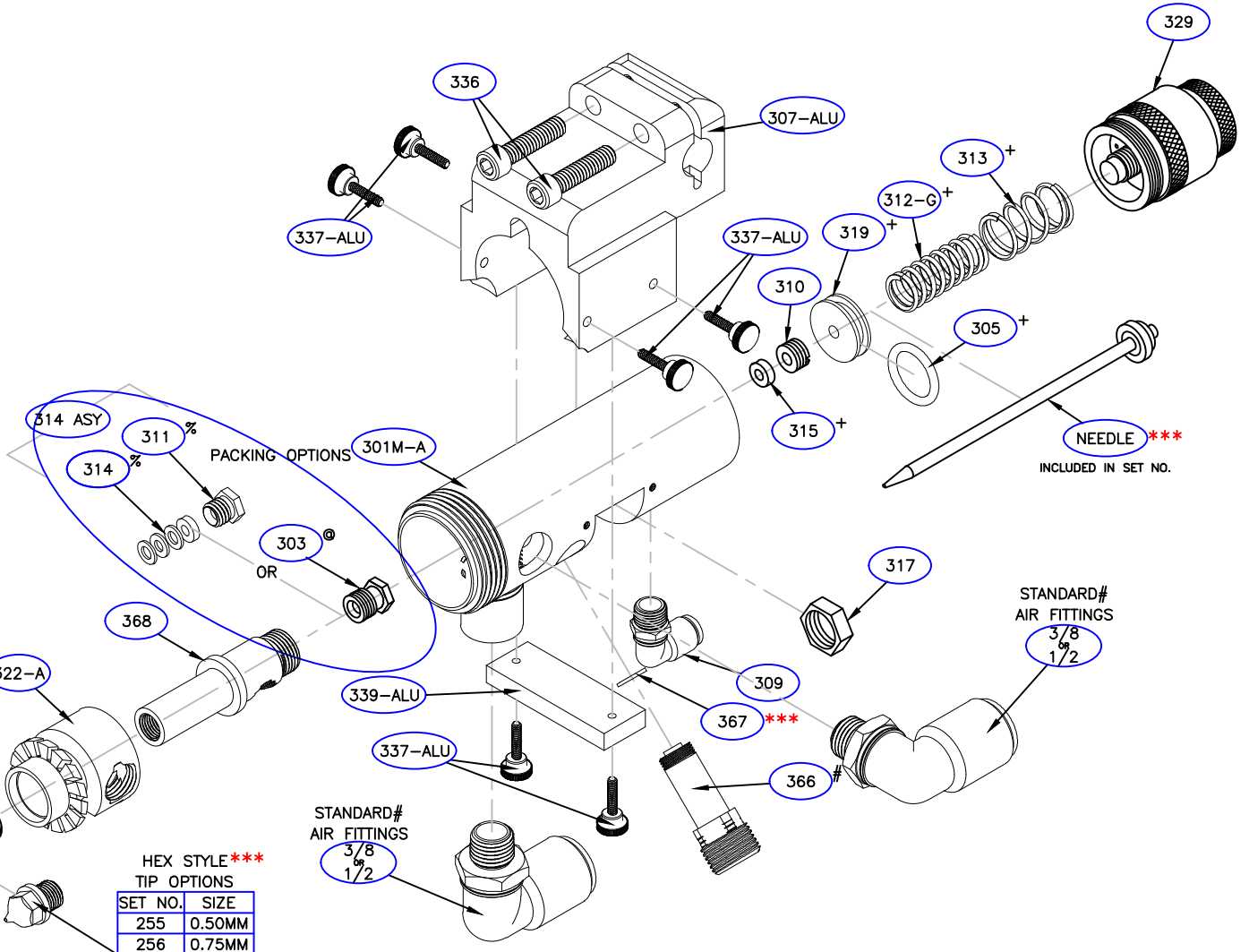
**TURBO
 SPRAY**

LEADERS IN LOW PRESSURE SINCE 1980!

*** = RECOMMENDED SPARE PARTS TO PREVENT DOWN TIME
 # = CONTACT FOR ADDITIONAL OPTIONS AVAILABLE

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322-A	ANALOG DISTRIBUTOR
1	368	FLUID TUBE
1	301M-A	GUN BODY
1	367	CRUSH WASHER
1	366	FLUID TUBE INSERT
1	317	FLUID TUBE NUT
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307-ALU	ALUMINUM GUN BRACKET
2	336	GUN MOUNTING SCREWS
1	339-ALU	BRACKET BELLY COVER
6	337-ALU	BRACKET MOUNTING SCREWS

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STANDARD***
AIR CAPS#

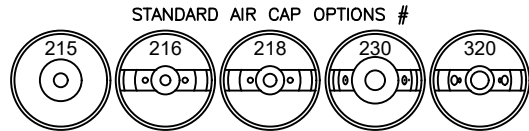
215
216
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WINGED STYLE***
TIP OPTIONS

SET NO.	SIZE
120	1.00MM
121	1.25MM
122	1.50MM
129	1.75MM
131	2.00MM
139	2.50MM

HEX STYLE***
TIP OPTIONS

SET NO.	SIZE
255	0.50MM
256	0.75MM
257	1.00MM
259	1.25MM
260	1.50MM



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300M-A-ALU

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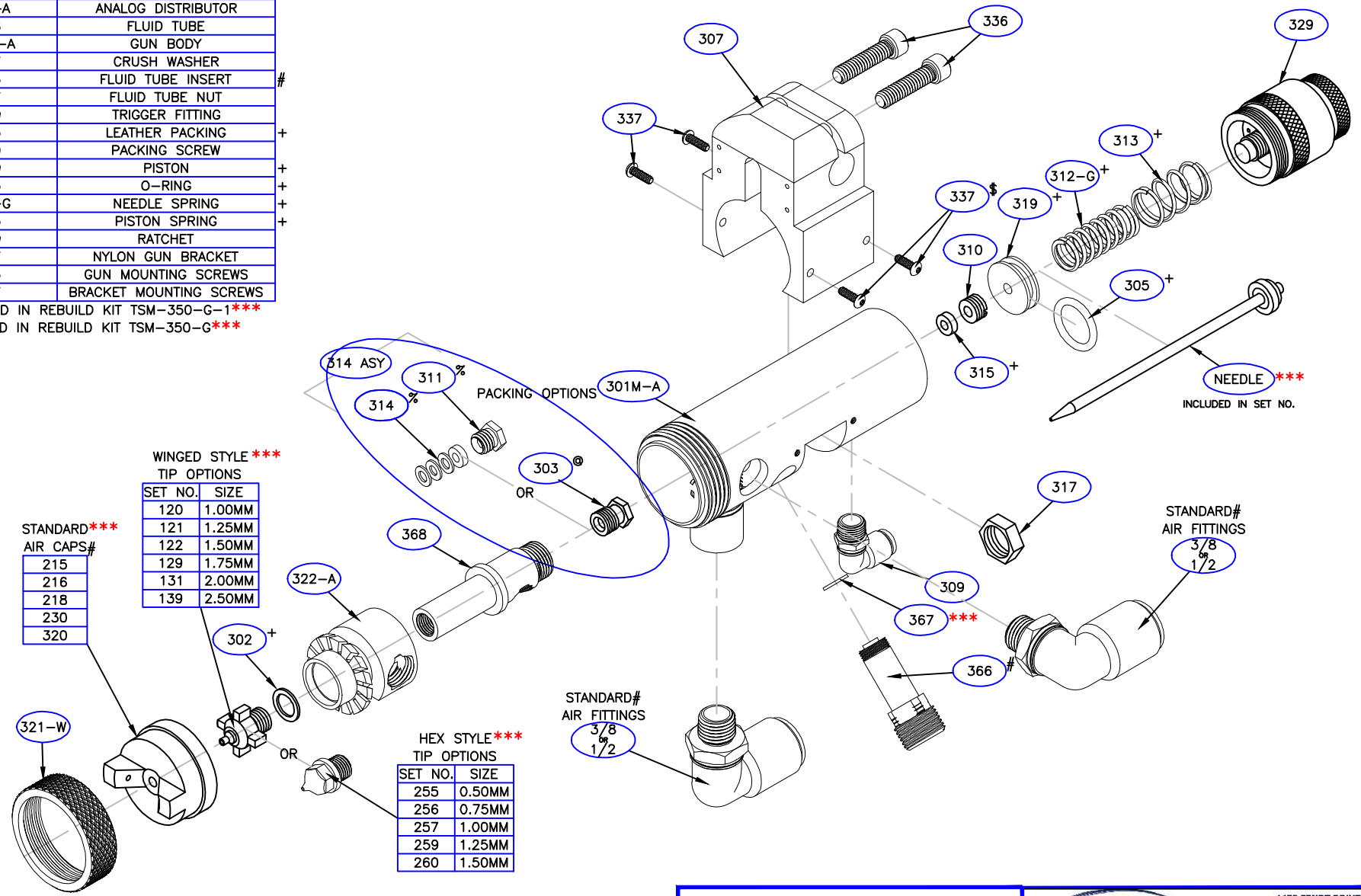
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**TURBO
 SPRAY**

LEADERS IN LOW PRESSURE SINCE 1980!

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322-A	ANALOG DISTRIBUTOR
1	368	FLUID TUBE
1	301M-A	GUN BODY
1	367	CRUSH WASHER
1	366	FLUID TUBE INSERT
1	317	FLUID TUBE NUT
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307	NYLON GUN BRACKET
2	336	GUN MOUNTING SCREWS
4	337	BRACKET MOUNTING SCREWS

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 +/% = INCLUDED IN REBUILD KIT TSM-350-G***



STANDARD***
AIR CAPS#

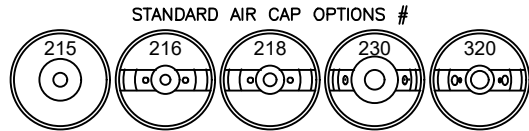
215
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WINGED STYLE ***
TIP OPTIONS

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121	1.25MM
122	1.50MM
129	1.75MM
131	2.00MM
139	2.50MM

HEX STYLE ***
TIP OPTIONS

SET NO.	SIZE
255	0.50MM
256	0.75MM
257	1.00MM
259	1.25MM
260	1.50MM



MODEL #:
300M-A

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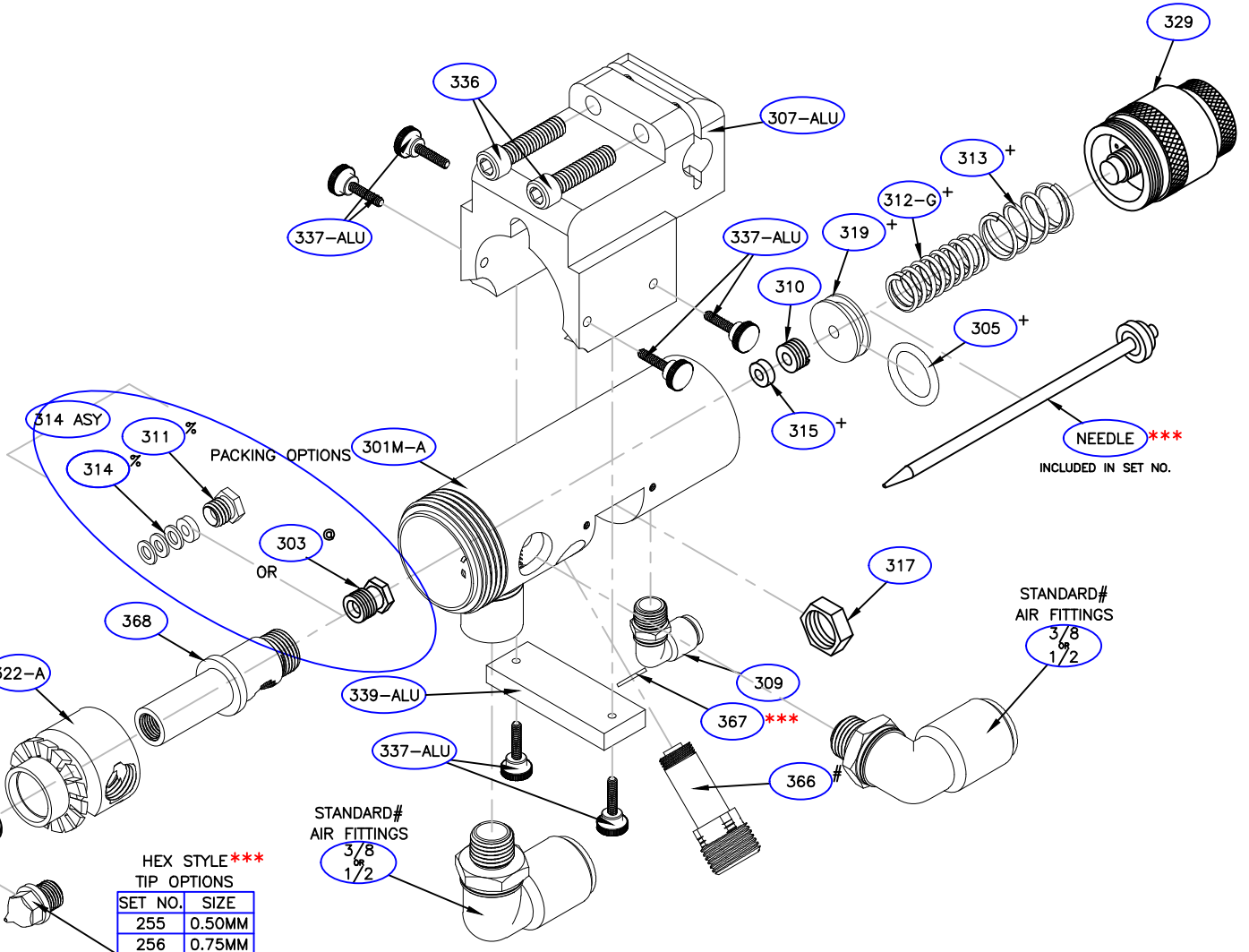
**TURBO
SPRAY**

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QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322-A	ANALOG DISTRIBUTOR
1	368	FLUID TUBE
1	301M-A	GUN BODY
1	367	CRUSH WASHER
1	366	FLUID TUBE INSERT
1	317	FLUID TUBE NUT
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307-ALU	ALUMINUM GUN BRACKET
2	336	GUN MOUNTING SCREWS
1	339-ALU	BRACKET BELLY COVER
6	337-ALU	BRACKET MOUNTING SCREWS

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STANDARD***
AIR CAPS#

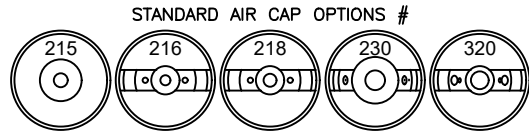
215
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WINGED STYLE***
TIP OPTIONS

SET NO.	SIZE
120	1.00MM
121	1.25MM
122	1.50MM
129	1.75MM
131	2.00MM
139	2.50MM

HEX STYLE***
TIP OPTIONS

SET NO.	SIZE
255	0.50MM
256	0.75MM
257	1.00MM
259	1.25MM
260	1.50MM



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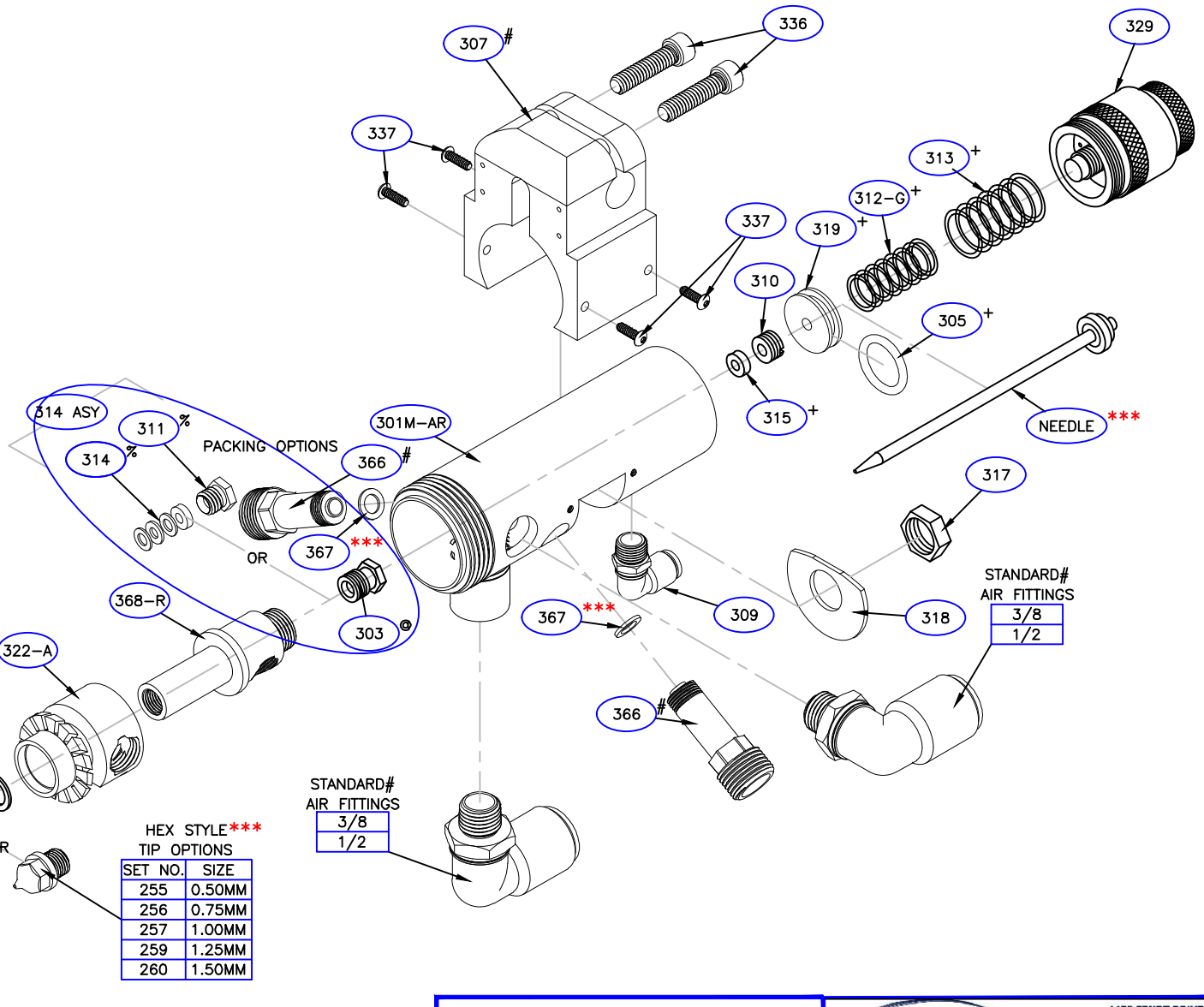
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**TURBO
 SPRAY**

LEADERS IN LOW PRESSURE SINCE 1980!

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322-A	ANALOG DISTRIBUTOR
1	368-R	RECIRC FLUID TUBE
1	303	PACKING
1	301M-AR	GUN BODY
2	367	CRUSH WASHER
2	366	FLUID TUBE INSERT
1	318	FLUID TUBE WASHER
1	317	FLUID TUBE NUT
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307	NYLON GUN BRACKET
2	336	GUN MOUNTING SCREWS
4	337	BRACKET MOUNTING SCREWS

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STANDARD***
AIR CAPS#

215
216
218
230
320

WINGED STYLE***
TIP OPTIONS

SET NO.	SIZE
120	1.00MM
121	1.25MM
122	1.50MM
129	1.75MM
131	2.00MM
139	2.50MM

HEX STYLE***
TIP OPTIONS

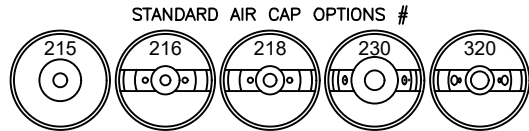
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259	1.25MM
260	1.50MM

STANDARD#
AIR FITTINGS

3/8
1/2

STANDARD#
AIR FITTINGS

3/8
1/2



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MODEL #:
300M-AR

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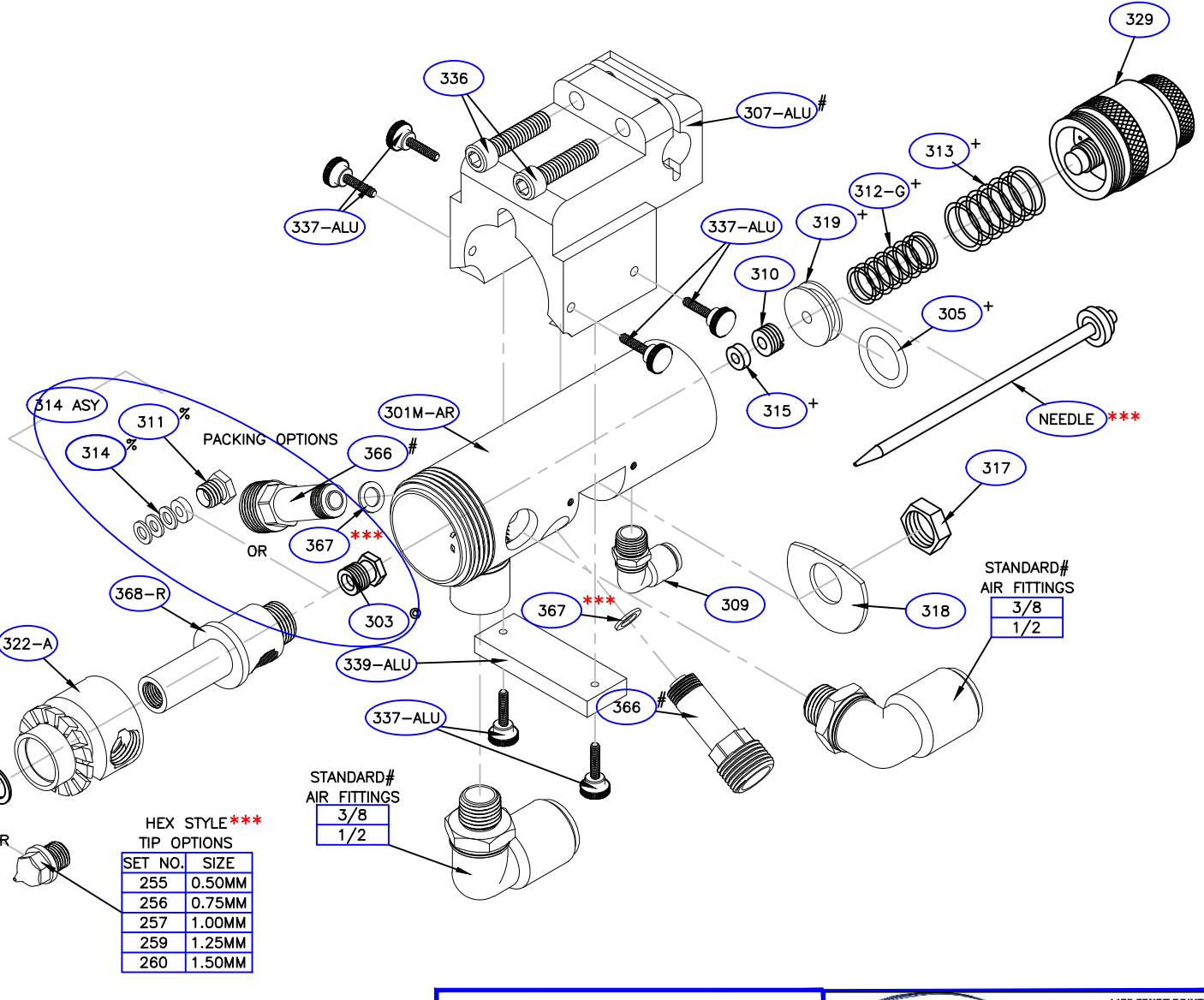
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TURBO SPRAY

LEADERS IN LOW PRESSURE SINCE 1980!

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1	368-R	RECIRC FLUID TUBE
1	303	PACKING
1	301M-AR	GUN BODY
2	367	CRUSH WASHER
2	366	FLUID TUBE INSERT
1	318	FLUID TUBE WASHER
1	317	FLUID TUBE NUT
1	309	TRIGGER FITTING
1	315	LEATHER PACKING
1	310	PACKING SCREW
1	319	PISTON
1	305	O-RING
1	312-G	NEEDLE SPRING
1	313	PISTON SPRING
1	329	RATCHET
1	307-ALU	ALUMINUM GUN BRACKET
2	336	GUN MOUNTING SCREWS
1	339-ALU	BRACKET BELLY COVER
6	337-ALU	BRACKET MOUNTING SCREWS

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 +/% = INCLUDED IN REBUILD KIT TSM-350-C***



STANDARD***
AIR CAPS#

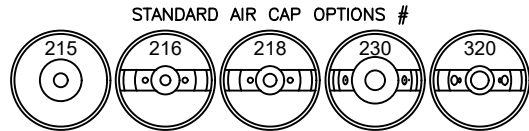
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WINGED STYLE***
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121	1.25MM
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HEX STYLE***
TIP OPTIONS

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300M-AR-ALU

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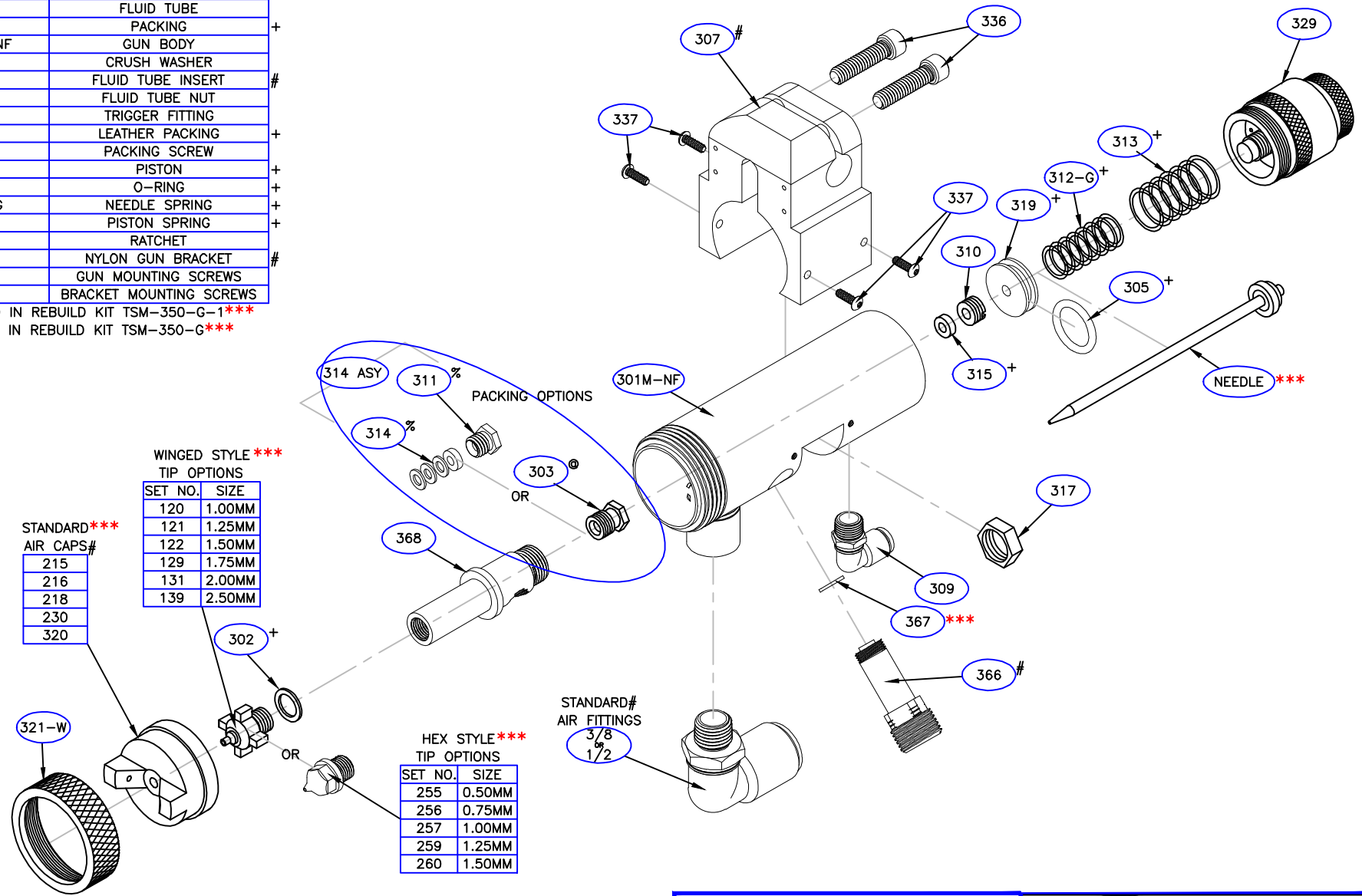
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**TURBO
 SPRAY**

LEADERS IN LOW PRESSURE SINCE 1980!

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1	302	TIP GASKET
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1	366	FLUID TUBE INSERT
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STANDARD***
AIR CAPS#

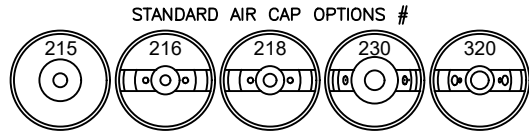
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WINGED STYLE***
TIP OPTIONS

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TIP OPTIONS

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256	0.75MM
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MODEL #:
300M-NF

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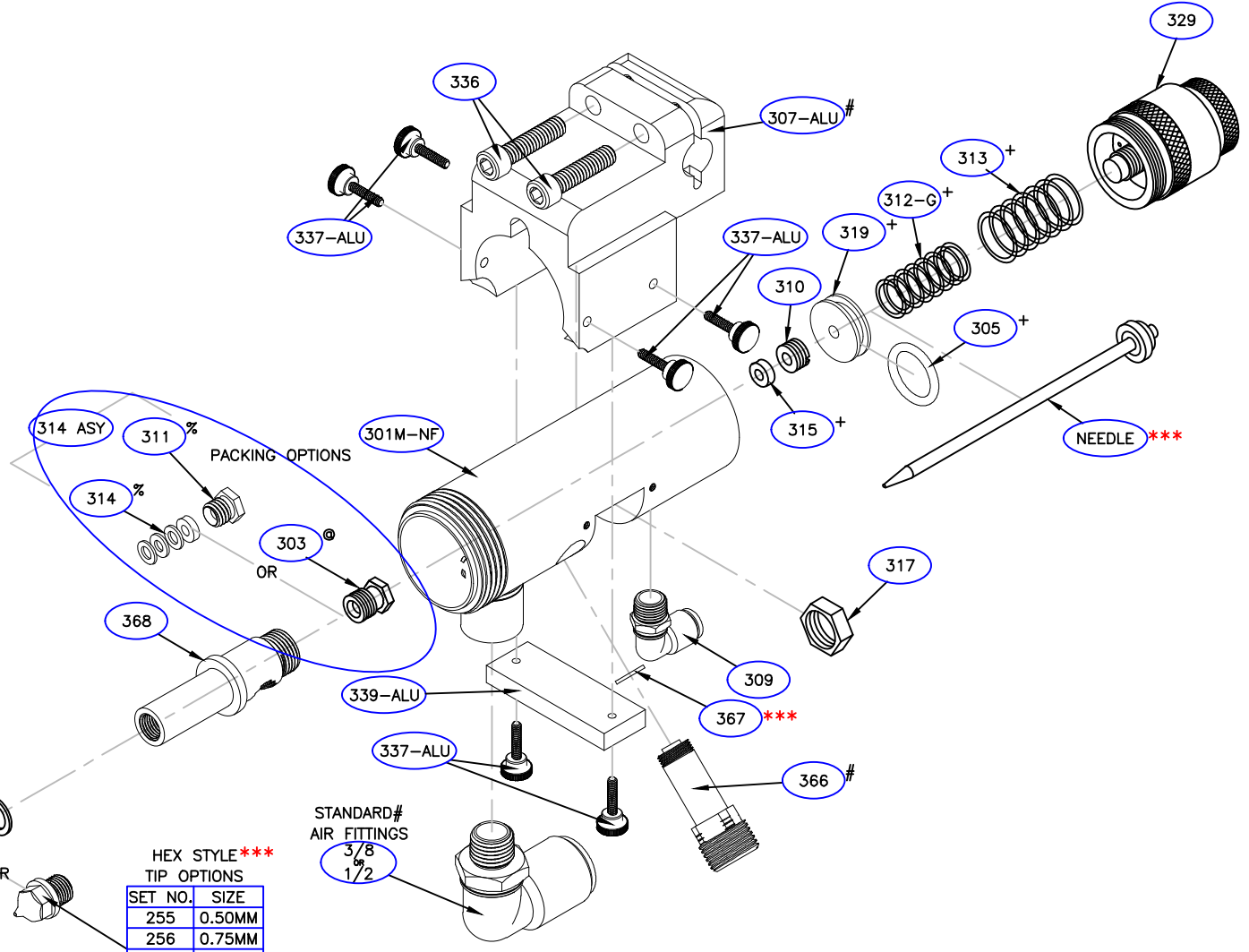
**TURBO
SPRAY**

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WINGED STYLE ***
 TIP OPTIONS

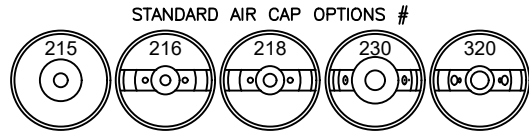
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129	1.75MM
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STANDARD ***
 AIR CAPS #

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HEX STYLE ***
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SET NO.	SIZE
255	0.50MM
256	0.75MM
257	1.00MM
259	1.25MM
260	1.50MM



MODEL #:
300M-NF-ALU

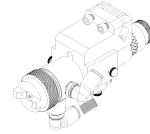
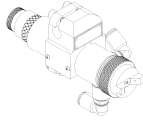
ORDERS/PRICING:
 (517) 548-9096
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1172 FENDT DRIVE
 HOWELL, MI 48843
 PHONE (517) 548-9096
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**TURBO
 SPRAY**

LEADERS IN LOW PRESSURE SINCE 1980!

*** = RECOMMENDED SPARE PARTS TO PREVENT DOWN TIME
 # = CONTACT FOR ADDITIONAL OPTIONS AVAILABLE



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RECOMMENDED PM SCHEDULE

DAILY

- The automatic gun should be flushed at the end of each shift.
- The flushing should be under low pressure (maximum 25 lbs.)
- The Air Cap should be removed, soaked, and brushed.
- Check for dirt particles in orifice.
- Check the (#302) tip gasket for wear and breaks.
- Blowing tips and air caps dry with air is recommended.

WEEKLY

- Flush gun once per week if using black or clear.
- Flush each shift if using metallic or Zinc rich
- Remove tip and air cap and clean same as above
- Check and adjust packing – use Vaseline if necessary

NOTE: Be sure to flush entire system from pot through gun if settling occurs

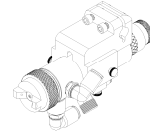
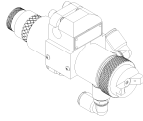
MONTHLY

- Same check list as weekly
- Check sizing on tips and wear on needle by feeling seating area of needle. Replace if necessary

NOTE: If guns are cycled intensely (2-3 shifts per day), tips and needles should be replaced every month. They should be replaced every three months during regular use. This will help control the process. Be sure to replace as a set.

QUARTERLY

- Rebuild guns (See automatic spray gun maintenance procedure)

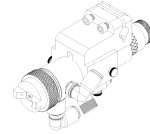
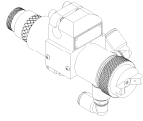


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TROUBLE SHOOTING

MODEL #300M / #300M-A / #300M-AR / #300M-NF

PROBLEM	SOLUTION
Tip Leakage	<p>Check fluid pressure. Should be in 4-8 Lb. range and constant Use fluid regulators where possible. Check #302 tip gasket. Check packings which may be dry or contaminated with paint. This will stop needle from seating in tip. Check tip for dirt. Check for bent needle. Check for excessive tip and needle wear</p>
Spray Skip	<p>Check tip for dirt. Remove tip and check needle travel - replace or lubricate packings if necessary. Check fluid pressure. Must be constant usually in the 4-8 lb. range Use fluid regulators where possible. Check paint fluid source - make sure all paint line fittings are tight. Make sure pump seal or siphon tube seals are not damaged and sealed tight. Special attention should be given to seal at the top of siphon tube. If paint is agitated, make sure agitator is turning slowly as not to aerate paint or force it above fluid tube.</p>
Fan Distortion	<p>Check side holes in air cap for obstructions. Check fluid flow, must be low and constant. Use fluid regulators where possible, especially in low ranges. Check paint viscosity. High viscosity causes smaller fans. Check ratio of air to fluid.</p>
Lack of Paint Break Up	<p>Lower fluid supply. Increase atomizing air. Increase heat. Decrease viscosity. Check air cap, tips and needles.</p>



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PROBLEM

SOLUTION

Insufficient Air to Cylinder	75 Lbs. minimum
O Ring New on Piston	Lube (petroleum jelly)
O Ring on Piston Worn	Fire several times to break in
Bent Needle	Replace needle
Packing "stick"	Lube needle in gun "cut" area as it enters packings
Needle "Stick"	(P-M) each day
	Tighten packing after one week break in (1/2 turn)
	Replace if worn
	Move small I.D. packing ring to front to wipe needle better

** Please note that fluid control in the low ranges (4-8 lb) is critical. A lack of control will cause gun fluctuation. To check, cut atomizing air, set fluid control, and check consistency of stream at the desired low PSI setting. Additional low pressure, sensitive fluid regulators (1-15 PSI) may have to be located close to the Turbo Spray guns. Use regulator #918 for robot.