



- EXITFLEX -  
**AP 20 AUTOMATIC AIRLESS SPRAY GUN**

Service  
Bulletin  
SB-AP20-00

**WARNING – HIGH PRESSURE DEVICE**  
Please Read These Instructions Before Using This Equipment

### MODELS AND SPECIFICATIONS

- 92-000 Stainless steel automatic airless spray gun with diffuser tip, 8mm air inlet ¼ bsp(f) single fluid inlet
- 92-001 Stainless steel automatic airless spray gun with diffuser tip, 8mm air inlet ¼ bsp(f) recirculation model with ¼ bsp(f) inlet and outlet.

The maximum working pressure of these guns is 345 bar (5000 PSI). Users must ensure that all accessories in use are suitable for use at these pressures and that the supply pressure cannot exceed the maximum pressure rating of the gun.

### WARNINGS

Halogenated Hydrocarbon Solvents – for example 1.1.1-TRICHLOROETHANE AND METHYLENE CHLORIDE can chemically react with aluminum and galvanized or zinc coated parts and cause an explosion hazard. Read the label or data sheet for the material you intend to spray for your own safety.

**Do not use spray materials containing these solvents with this equipment.**

### DESCRIPTION

These AP20 Stainless steel automatic airless spray guns are designed for continuous use on automatic spray stations with high pressure airless spraying pumps and feature pneumatic operation, and the choice of single inlet or through circulation models.

### IMPORTANT

To ensure the gun reaches you in first class condition protective coatings have been used. Flush thoroughly with compatible solvent before use.

Whilst these guns may be used with the most common coatings and finishing materials they are not designed for use with highly corrosive or highly abrasive material.

If the guns are used with materials which are abrasive or corrosive you should expect to have to frequently and thoroughly clean and lubricate and where necessary replace worn parts.

**CAUTION** Because it is possible to generate static electricity with airless systems which could in an extreme case result in an electrical spark and potential explosion, be sure to ground your equipment and where possible earth the equipment being sprayed. Always use conductive hoses to ensure any static can run to ground.

### WARNING – FLUID INJECTION HAZARD

The pressures in use in airless spraying equipment frequently up to 7250 PSI can penetrate the skin and inject potentially large quantities of toxic fluid into the body. Such an injection at its worst could cause the loss of a limb or other permanent disability. Extreme caution must be exercised when using any airless spray equipment. Any injection must be treated seriously and promptly. Only trained personnel should use airless spray equipment.

**NEVER** use the gun without a tip guard.

**NEVER** aim the gun at any part of the body or at any person under any circumstances.

**NEVER** permit any part of the body to come into contact with the fluid stream at any point.

**NEVER** dismantle the equipment without first shutting off all air and fluid supplied and then not before releasing all the pressure in the system.

**NEVER** leave the gun unattended or unlocked when not in use. Always apply the trigger lock.

**NEVER** attempt to back flush the gun by holding a rag in front like you can with a conventional spray gun.. You cannot back flush an airless gun. Don't attempt it.

**ALWAYS** release the pressure before trying to remove a blocked tip which has failed to clear on reversal.

**NEVER** remove a blocked tip when the system is pressurized.

### IMPORTANT

#### NEVER

Leave the spray gun unattended whilst adjustments or maintenance is in progress and when the gun is under pressure.

#### NEVER

Dismantle the spray gun whilst it is under pressure.

#### ALWAYS

Release the air and fluid pressure before any major work is carried out on the spray gun.

## INSTALLATION

Simply connect the correct pressure rated air and fluid hoses with correct threaded connections to the spray gun fluid inlet (7).

Where required and prior to connecting the fluid hose, ensure that any line filter accessory is securely fastened with the correct screen size fitted at inlet (7).

Mount the gun on a suitable mounting bar of 8mm diameter and secure at the required angle with locking screw (8).

An 8mm OD nylon air supply tube should be pushed into the gun inlet to provide actuating air of 4 bar.

## OPERATION

The operation of the gun is affected by a number of factors. The spray tip type, orifice and angle, the material pump volume and pressure and all pressure to the triggering cylinder and the supply hose bore and length and the filter mesh. Be sure to choose the required correct combination of these items to get the best from your spray gun.

Correctly prepare the material to be sprayed in accordance with the makers recommendations.

Prime the pump and set it ready to work in accordance with the makers recommendations.

Test spray a small area, adjust the pump pressure or change the spray tip as necessary to achieve the result required.

Always use your system at the lowest practical pressure achievable without "tails" in the spray pattern.

Correct use of the gun gives the best and cleanest result. Keep the gun perpendicular to the surface being sprayed and do not arc the gun at the end of the spray stroke, this causes excessive overspray and an uneven finish.

Correct recommended gun to surface distance is 300 - 380 mm (12 - 15")

Various types of tips are available the most commonly used are of the reversible type. These can produce vertical or horizontal spray patterns according to how they are mounted on the gun. Choose the configuration most suitable for your application and mount accordingly.

Speedy MK V can be rotated from vertical to horizontal without tools and without dismantling in any way. MK V Speedy is recommended as your first choice for use with your AP 20 gun.

## CAUTION

The operating details for SPEEDY MK V are included with the units when supplied in the service bulletin provided. Always follow the instructions provided.

## PREVENTATIVE MAINTENANCE

Clean the fluid passages of the gun whilst cleaning the material pump and hoses.

**NEVER** attempt to back flush the gun by holding a rag over the front of the gun then pulling the trigger. It is not possible with airless guns to back flush and it is very dangerous to attempt to do so.

Wash the exterior of the gun with a suitable solvent and a brush or rag. Dry off afterwards before storing. Do not immerse the gun in solvent as this destroys any lubricant on the parts.

Clean the spray tip whilst flushing the system with solvent.

Afterwards rinse the tip again in clear solvent. If the orifice is blocked use an EXITFLEX 36-701 or 36-703 tip cleaning needle to clear, never use hard blunt instruments which can damage the tip orifice and render the tip useless.

## LUBRICATION

Upon assembly lightly grease the cylinder wall before mounting piston (11). In use, place a few drops daily of lubricating oil at the needle packing nut (9).

## REPLACEMENT OF PARTS

Never dismantle the gun whilst it is attached to the pump and hose. Relieve all pressure from the system and remove the gun for repair or service.

Spray tips may be removed from the gun without removing the gun from the system.

Turn the Cylinder Screw nut (8) fully clockwise to the lock position.

- (1) Unscrew the airless spray nozzle nut.
- (2) Remove the spray tip (1) or cylinder tip, or other (not illustrated) then gasket (2) or seal or other (not illustrated).
- (3) Replace any worn or damaged or different sized part then reinstall in reverse order.

**NEVER** dismantle the gun when it is under pressure

1. To remove the needle. First ensure the compressed air line to the cylinder is depressurized and isolated from the air supply. Hold the nut and withdraw from the cylinder complete with the piston and needle.
2. To replace piston seals. When needle and piston assembly is free from the body it is an easy matter to replace the piston seal. Prize off and replace with care.
3. To replace needle packings. Remove items (8 & 13) and hook out oil seal (7) and washer (6). You can now see the needle packing screw. Remove by turning anti-clockwise. Prize out needle packing seals (15), clean the assembly and replace with new parts in reverse order.

Reassemble all in reverse order.

Before re-installing the needle (10) add a light lubricant to needle seal (15).

Before re-installing piston (11) add a light grease to the seals and cylinder walls.

Push the piston fully home then install the seat (3) to the body (5). It should seat with the needle.

Once the seating is satisfactory the spring (13) and cylinder cap nut (8) may be assembled to the gun body (5).

Pressure test tip seal at the bench before reinstalling on any machine. Pressure test operating cylinder for correct function before reinstalling on any machine.

NB. When needles and tips are worn out it is recommended they are replaced and not re-lapped.

## FILTER REPLACEMENT

After releasing system pressure and if and when an accessory line filter is fitted (72-100 & 72-220) the disc filter may be changed without removing the entire unit from the fluid inlet. Slacken the hose connection then release the lower portion of the housing. Change the filter and retighten the housing then the hose connection.

ACCESSORY ITEMS AVAILABLE	
36-701	Tip cleaning needles for up to orifice size 0.011"
36-703	Tip cleaning needles for over 0.011" orifice size
88-547/0	*MK V SPEEDY reversible tip system (see note)
88-591/XXX	SPEEDY MK V tip cylinders (state size)
36-005-K10	100 mesh disc filter element (pack of 10)
36-009-K10	60 mesh disc filter element (pack of 10)
72-100	Line filter (incl. disc filter) 1/4" BSP M.F.
72-220	Line filter (incl. disc filter) 1/4" NPS M.F.
341-015	Adjustable titan tip. Lacquer and stains
341-020	Adjustable titan tip. Lacquer and stains
341-024	Adjustable titan tip. Latex and enamel
341-028	Adjustable titan tip. Latex and enamel
341-041	Adjustable titan tip. High builds
341-049	Adjustable titan tip. Very heavy materials
63-505	Flat spray tips. (state orifice and angle)
MWP 400 bar	
MWP 400 bar	
MWP 400 bar	
MWP 400 bar	
MWP 400 bar	
MWP 250 bar	
MWP 250 bar	
MWP 250 bar	
MWP 250 bar	
MWP 250 bar	
MWP 250 bar	
MWP 400 bar	

**NB. Irrespective of the accessory pressure rating the maximum pressure of the AP 20 is 345 bar.**

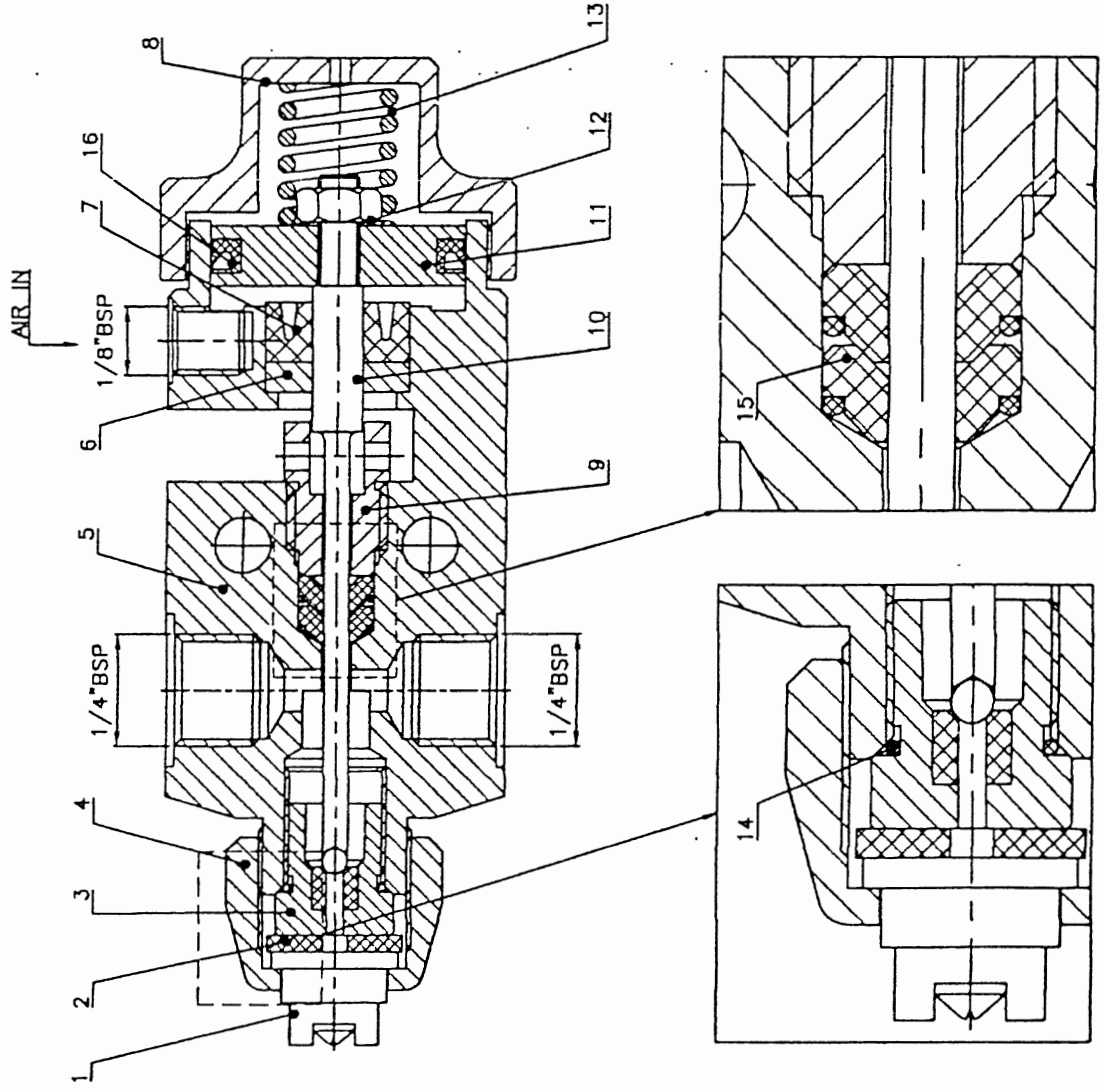
\*A range of models is produced to suit most popular airless spray guns. For full details refer to the SPEEDY MK V data sheet

AP 20 SPARE PARTS			
No.	PART REF.	DESCRIPTION	
16	92-016	Air seal	02 110 028 25
15	92-015	Needle packing set	06 001 004 00
14	92-014	O ring	06 001 008 28
13	92-013	Spring	06 004 004 30
12	92-012	Nut M5	15 104 023 19
11	92-011	Piston disc	06 004 047 19
10	92-010	Needle assembly	06 004 046 00
9	92-009	Packing screw	06 004 045 03
8	92-008	Cap nut	06 004 017 19
7	92-007	Oil Seal	06 004 044 25
6	92-006	Washer	06 004 043 01
5	92-005	Gun Body	06 004 042 19
4	92-004	Nozzle nut	06 001 005 19
3	92-003	Seat	06 001 007 00
2	92-002	Nozzle Packing 21-008	06 001 006 21
1	92-001	Nozzle 63-505	07 001 000 00

**DIMENSIONS**  
 Maximum w/o tip 107mm long  
 Maximum 39mm wide  
 Maximum (over inlet) 65mm high

**WEIGHT** Excluding tip 660 grams  
 Mounting Bar diameter 7mm  
 Max. Working pressure 345 Bar (5000psi)

**Max. air input pressure** 6 bar  
**Fluid tip diffuser thread.** 1 1/16-16 UNEF  
 Normal operating setting for back cylinder Fully closed posit  
**Fluid inlet(s)** Model AP 92-000 1/4 BSPF  
 Model AP 92-001 1/4 BSPF  
**Air inlet connection for nylon tube** 8mm push in





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## OTHER PRODUCTS AVAILABLE FROM EXITFLEX INCLUDE:

- AIRLESS SPRAY TIPS
- AIR ASSISTED AIRLESS SPRAY TIPS
- AIRLESS SPRAY GUNS
- AIRLESS PAINT SPRAY HOSES
- AIR & FLUID HOSES – CONVENTIONAL
- HOSE FITTINGS
- COUPLINGS & ADAPTORS
- MANIFOLD/SUCTION/IN-LINE FILTERS
- SUCTION SYSTEMS
- PAINT AGITATORS
- HIGH PRESSURE SWIVELS
- AIR FED BREATHING APARATUS
- SPRAY GUN EXTENSIONS – AIRLESS & CONVENTIONAL
- GAUGES
- HIGH & LOW PRESSURE FLUID VALVES & REGULATORS
- HVLP TURBINE HOSES
- QUICK RELEASE CONNECTIONS – AIR & FLUID
- **YOUR CONTACT FOR SPARES & SERVICE**