Critical to Every Paint Operations Success!

"Spray Gun Performance"

At BECCA, we have encountered many painters who believe their guns are being cleaned appropriately. Unfortunately, we have found many problems with current industry **practices** of cleaning spray guns. Here is what we see:

Poor Spray Gun Cleaning Practices:

- **Most Common Poor Practice Used** – The common use is of a squirt bottle or ketchup bottle to trickle solvent through the spray gun. This is not a sufficient cleaning practice for spray guns. Several issues occur when using a squirt bottle to clean spray guns…

  - The low pressure of the bottle does not provide enough pressure to clear out chunks of paint internally on spray guns.
  - Air pressure is usually not connected to the back of the spray gun, allowing paint to work its way into the air passageways.
  - In some cases tube or flat brushes are used or not used to address the air cap and fluid tip to ensure all residues are removed.

- **2nd Most Common Poor Practice Used** – Ineffective spray gun cleaners that do not provide cleaning consistency by using improper tools and/or cleaning materials to achieve success. These poor systems, due to their inability to clean a spray gun, force good painters to use the above practice as the lesser of two evils! A poor painter will just continue to use the ineffective spray gun cleaner!

- **Does the above make any sense?**
  - **The most important tool a painter has is the spray gun applying the paint materials and there is a practice for success. It is left to the painter to figure it out! Material costs are the most important aspects to control and we leave the spray gun, the applicator of paint materials, largest reason for touch-ups, redoes, and customer complaints to the painter to decide the best practices used. The same person we pressure for production!**
  - **It is not the painters fault! It is everyone in this industry!**
    - **Paint Companies & Paint Jobbers for not placing the importance of the cleaning process and how that affects painting success**

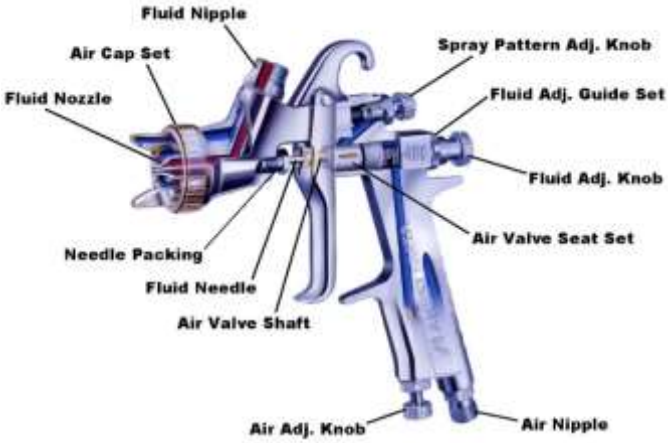
- **Paint Companies for not making it part of their training**
- **Shops for purchasing the lowest cost piece of equipment or Jobbers for providing the lowest cost equipment**

Now that we have identified **the problem** then what is the solution?

- A "System" approach to cleaning Spray Guns
- A "System" that is not only used by painters, but found to provide consistent success day in and day out!
- A "System" that is on target with what the top 10% of painters found to be successful! A system that matches those preferred cleaning practices and utilizes them in their cleaning system!

The BECCA Investigation

Spray guns functionality in paint shops is critical for maintaining quality finishes on paint jobs. At BECCA, we have found issues regarding the performance and maintenance of spray guns. We approached this challenge by acquiring spray guns being used in the field, studied the various issues found and assessed what we could do to prevent each from occurring. We had each of these used spray guns cut in half, enabling us to see the build-up of paint materials and the wear and tear on internal components. (Pictures of cut-away guns here) From this analysis, we began building a process around protecting the areas of concern. Those areas of concern consist of…



- Major Performance Areas
  - Fluid Tip
  - Needle
  - Fluid Needle Packing
  - Air Cap
  - Air Distribution plate (some paint guns)
  - Air Passageways
- Minor Areas
  - Spray Gun Body
  - Trigger

The biggest issue in cleaning spray guns is the lack of appropriate tools to make cleaning for the painter easy. At BECCA, we have designed our gun cleaners to make cleaning the gun easier, more effective, and in a much quicker time than previous methods. When proper cleaning does not occur the following areas are affected…

Fluid Tip: Blockages or paint buildups will prevent proper flow of fluid and disrupt with volume of paint supplied

Needle: Paint buildup on the needle can cause trigger sticking and disrupt or reduced fluid flow, affecting your spray guns ability to spray effectively.

Fluid Needle Packing: Paint buildup on the needle, particularly with waterborne because the dry material acts like sand paper against the packing surface, ruining the packing and leading to leakage

Air Cap: Build-up and blockages in the air cap will prevent proper air flow, disrupting the spray pattern, causing paint defects such as tiger stripping, mottling, or other paint related issues.

Air Distribution Plate: Build-up and blockages on the Air Distribution Plate will prevent proper air flow, disrupting the spray pattern, causing paint defects such as tiger stripping, mottling, or other paint related issues.

Air Passageways: paint will work its way into the air passageways affecting air flow through the spray gun. With waterborne materials on internal components of the spray gun eventually will cause corrosion.

The BECCA Cleaning Tools

BECCA has developed a series of tools for the spray gun cleaning process based on the testing and feedback of top painters from all over the country. These tools have been developed to achieve maximum success with very little effort in a short period of time.

Spray guns spraying solvent based materials can primarily be cleaned with solvent. Waterborne materials are far more difficult to clean and unfortunately, the standard process of chasing with solvent (usually acetone) creates more issues than it solves. Solvent mixed with waterborne paint causes waterborne paint to coagulate and become and behave like a solvent paint. The remaining paint in or on the spray gun will create a strong adhesion to the surface, eventually causing performance problems or even worse corrosion.

BECCA has developed a simple process with the following tools:

All BECCA Spray Gun Cleaners:

- **Air Connect™** : Air connection to protect air passageways
- **Power Pistol™**: A powerful pulsating fluid flush to break up paint buildups on internal components
- **Flow Brush**: Special short bristle cleaning brush for the fluid tip and air cap

Waterborne Spray Gun Cleaners:

- **Pre-Rinse Systems:** This system allows for the gross solids to be captured in a Pre-Rinse Container that then can be managed by adding H2O DRY to solidify the waste and once tested allow to be disposed in the regular waste
- **Water Wave:** This product leaves a Micro-film coating on the spray gun not allowing the waterborne materials to stick to the surface, making it easier to clean.
- **Blow Off Gun**: OSHA compliant compressed air blow off gun designed to clear all passageways of any cleaning fluids
- **Optional Heating Systems**: Heats the cleaning fluid up to 130°F for rapid removal of paint materials. This includes difficult colors like red, blue, and whites

Solvent Spray Gun Cleaners:

- **Optional Pre-Rinse Systems:** This system allows for the gross solids to be captured in a Pre-Rinse Container.
- **Used/Clean Solvent Selection:** An operator can select Used Solvent for pre-cleaning and Clean Solvent for the final rinse, conserving on solvent

When guns aren't being cleaned properly the painter runs the risks of doing re-do's or repairs, shops waste paint, and the length of a spray guns life is shortened drastically. Having appropriate equipment to care for the painters tool is a necessity to the painter's and the shop's success.

The BECCA 3P System

The BECCA 3P System is major leap in spray gun cleaning and waste recycling processes. The system combines BECCA's unique technologies needed for proper cleaning and waste management through a guided selection process that provides the best system for each particular shop application.

What is 3P? It stands for Three Processes for Success!

- Process One: Detail clean and polish of the spray gun to get it back to like new condition. If new move on to Step Two.
- Process Two: Implement the BECCA cleaning system for primer/sealer, base coat, clear coat, or two component materials or single stage materials.
- Process Three: Select a waste management system that best handles the particular materials whether they are waterborne, solvent, multi-stage, two component, or single stage.

3P in Detail - Now let's review each step in detail to identify the BECCA tools.

- **Process One** – Detail Clean & Polish
  - Detail Cleaning - Follow BECCA's detail cleaning process for any spray gun type. This includes both fluid and air passageways.
    Video: https://www.youtube.com/watch?time_continue=1&v=3wI-YnnKi8E
  - Polishing Process – Follow BECCA's detail polishing process and bring the spray gun to like or better than new

- **Process Two** – Select a spray gun cleaning system for each type of spray gun used
  - Primer/Sealer Spray Gun – BECCA would recommend a manual* system for this process that would take place less frequently. Such as the Big Squirt, 40 series, or 50 series gun cleaner.
  - Base Coat Spray Gun - BECCA would recommend a manual* system for this process that would take place more frequently depending on the amount of colors and color changes. If it is a waterborne system we would strongly recommend Heat Systems to be added. Such as the Solvent Squirt, 40 series, 50 series, or 700 Series.

  - Clear Coat Spray Gun - BECCA would recommend a manual* system for this process. Such as the Big Squirt, 40 series, 50 series, or 700 Series.
    Note: BECCA's recommendation for Manual Systems is based on reviews with Top painters and the speed The BECCA Systems process was able to achieve.

- **Process Three** – We need to select the best recycling systems to minimize the waste stream from the cleaning process and any other paint related waste.
  - Waterborne Waste
    - Pre-Rinse Systems - This system allows for the gross solids to be captured in a Pre-Rinse Container that then can be managed by adding H2O DRY to solidify the waste.
    - H2O Dry – This system will dry out remaining waterborne paint or cleaning solution allowing it to be legally disposed in the regular waste stream (Testing and paperwork on file is required), eliminating hazardous waste hauling.
    - Optional Clarifier Recycling System – This system uses a flocculation compound that allows you to recycler and reuse the cleaning solution over and over!
  - Solvent Waste
    - Optional Filtration Recycling - This allows for the waste solvent to be recycled (95%) for reuse over & over
      Note: Significantly reducing the Hazardous waste hauled away.

- Optional Distillation Recycling – This allows for the waste solvent to be recycled (100%) for reuse over & over

  Note: Significantly reducing the Hazardous waste hauled away.

The BECCA 3P System takes Spray Gun Cleaning to the ultimate level. This system provides a long term solution that has:

- High Level of Cleaning
  - If all steps of the process are followed then the gun will be like new all the time
- Very Low cost to Operate
  - Low Maintenance costs
  - Only uses a small amount of compressed air
- Very Low waste Generation
  - Hazardous waste
  - Regular Waste

BECCA's 3P System provides an easy, effective method for cleaning spray guns like no other competitive gun cleaner.