

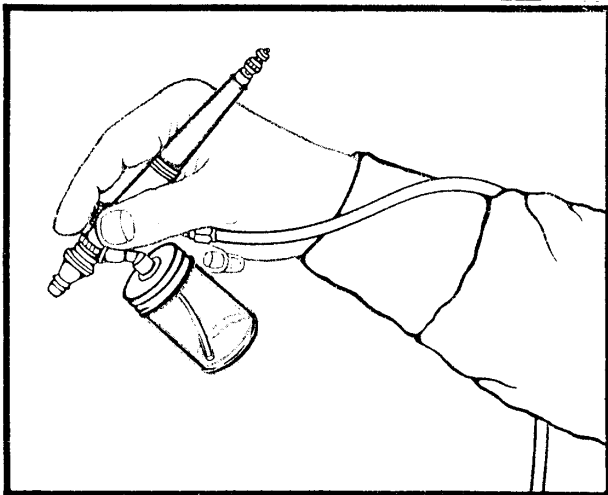
# LEARN ABOUT AIRBRUSHES

## THE AIRBRUSH

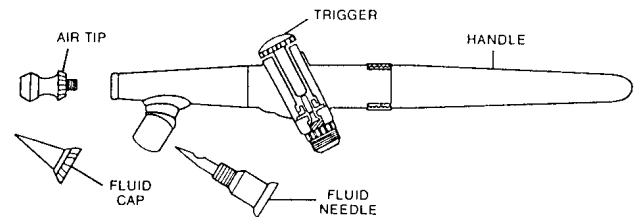
The airbrush is an instrument used to apply paints or inks to a surface. Paint is siphoned from a paint cup or bottle that is attached to the body of the airbrush, then it is mixed with air as it is sprayed through the tip of the airbrush. Air pressure for the paint application is supplied by an air compressor or compressed air tank and is transferred to the airbrush via an air hose. The unequalled capability of varied subtle tonal graduations, softness to sharp and fine-line detail of color are noted characteristics of the airbrush which make this instrument a "mandatory" tool for the wildlife artist (especially for fish finishing).

As stated., there are many different airbrushes available and the majority of them are manufactured with "quality" materials, construction, design and performance. Such name brands include Paasche, Aztec, DeVilbiss, Badger, etc. Basically speaking there are two types of airbrushes; single-action and double-action.

Depending on its design, the single-action airbrush may be "internal mix" or "external mix"; double-action airbrushes are of "internal mix." Internal mix simply means that the paint flow and the air flow mix "inside" of the airbrush, hence internal mix. "External Mix" means just that, the paints and the air flow mix together outside of the airbrush at the tip.



## SINGLE-ACTION VS DOUBLE-ACTION



### SINGLE-ACTION, EXTERNAL-MIX

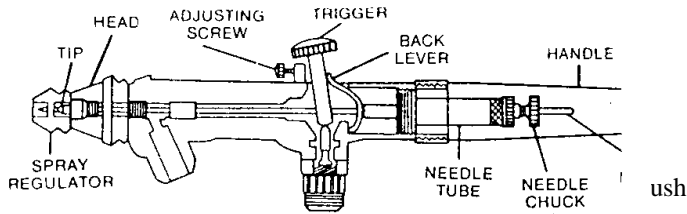
**OPERATION:** The SINGLE-ACTION, EXTERNAL-MIX airbrush is triggered by simply depressing the trigger to release a preset volume of spray. Regulating the spray setting requires turning the FLUID CAP located at the front end of the airbrush which increases or decreases spray volume.

**SPRAY CHARACTERISTICS:** The term EXTERNAL-MIX indicates that the air and liquid are brought together and atomized outside the head of FLUID NEEDLE ASSEMBLY of the airbrush. The fluid needle assembly consists of three parts: AIR TIP, FLUID CAP AND FLUID NEEDLE. The FLUID NEEDLE, which the color is delivered through, is positioned inside the fluid cap. Most EXTERNAL-MIX, SINGLE-ACTION models also come equipped with INTERCHANGEABLE FLUID ASSEMBLIES.

EXTERNAL-MIX airbrushes produce a COARSE, STIPPLED spray pattern in comparison to the finer spray of internal-mix models. Another difference between the two types is the ability of the EXTERNAL-MIX to accommodate pigments of a heavier viscosity. Depending on the assembly size being used, external-mix airbrushes provide spray patterns which range in size from approximately 1/8" to 2-1/2".

**APPLICATIONS:** SINGLE-ACTION EXTERNAL-MIX models have the most simplistic construction of most airbrushes. Generally speaking, this model is not used for finer types of rendering. The SINGLE-ACTION, EXTERNAL-MIX airbrush is the most popular model for HOBBY work. Its ability to spray denser pigments and simplistic construction make this airbrush a practical tool for many Hobby, Taxidermy and Ceramic applications.

## DOUBLE-ACTION, INTERNAL-MIX



DOWN on the trigger releases AIR, and PULLING BACK release color. The volume of color sprayed directly corresponds to how far the trigger is pulled back. For example, when airbrushing a fine line the trigger is only slightly drawn back. In comparison, heavy spray settings require pulling the trigger further back which increases the volume of spray. Reversing from a heavy setting to a fine setting simply requires pushing the trigger forward to its original position. The DOUBLE-ACTION provides the ability to regulate spray patterns gradually and consistently by changing the position of the trigger. UNLIKE single-action models it is not necessary to stop airbrushing while making a change in the spray setting. This gives the DOUBLE-ACTION airbrush inherently more versatility than the single-action types.

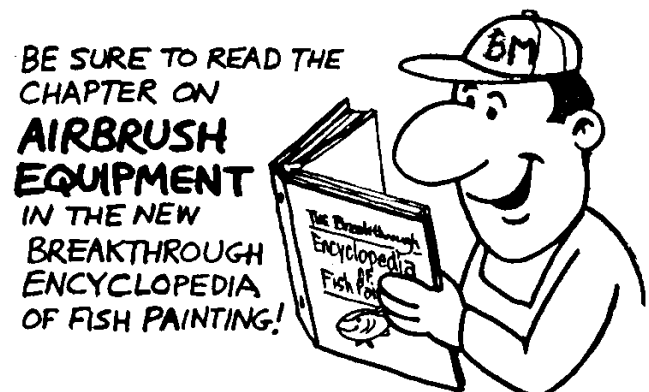
DOUBLE-ACTION airbrushes are also regulated by a needle that runs through the body and into a HEAD ASSEMBLY, just as it does with its SINGLE-ACTION counterpart. The needle is moved in and out of the TIP, which in turn increases or decreases spray release, exactly as described for the single-action, internal-mix airbrush. DOUBLE-ACTION models differ by the method in which the needle is moved backward and forward. The needle is threaded through openings in the stem of the airbrush TRIGGER and also an S-shaped part called a BACK LEVER. When the trigger is positioned backward and forward, the needle moves in

Another feature of some double-action airbrushes is the ADJUSTING SCREW (see cut-a-way). The adjusting screw can be screwed inward pushing the trigger backward, thus PRESETTING the trigger to a specific spray setting.

The double-action, internal-mix airbrush is available with BOTTOM, SIDE and GRAVITY-FEED reservoirs. The side and gravity-feed models are most appropriate for precision ILLUSTRATION, PHOTO RETOUCHING or any type of finely-rendered work. The BOTTOM-FEED models which accommodate containers of different sizes are generally the most convenient and versatile.

SPRAY CHARACTERISTICS: The spray characteristics of INTERNAL-MIX airbrushes, whether SINGLE or DOUBLE-ACTION, are virtually identical. Atomization of color takes place in exactly the same manner and location; it is only their triggering actions which set them apart. Another common characteristic of some DOUBLE-ACTION, INTERNAL-MIX and SINGLE-ACTION, INTERNAL-MIX airbrushes is an INTERCHANGEABLE head assembly. This expands their versatility. Most double-action, internal-mix models produce spray patterns ranging in size from approximately the width of a FINE PENCIL LINE to two inches.

APPLICATIONS: The double-action, internal-mix model is involved in almost every airbrush application. All facets of graphic design, illustration and photo retouching utilize the double-action, internal-mix airbrush. The added control of the DOUBLE-ACTION and the smooth, uniform spray of its INTERNAL-MIX make this model ideal for graphic and fine artists alike. This model is RECOMMENDED for all areas of commercial graphics and fine art.



UNISON with the trigger's movements. Should the trigger be pulled and simply release, it will instantly spring forward to its original forward position. Proper alignment of back lever, trigger and needle is crucial for achieving the tension necessary to spring the trigger forward.



