

FACTSHEET NUMBER 1



This fact-sheet is supplied as a basic introduction to the subject and is not a definitive guide in any shape or form.

The fact-sheet is targeted to the developing modeller looking to move into different methods of 'finishing' their models and to answer frequently asked questions about this more advanced technique.

Models2U™ supply the Revell brand of airbrushes and associated accessories and this fact-sheet refers to this brand but we do recognise that other brands are available.

1.0 Introduction

1.1 What is airbrushing?

Airbrushing is a technique used by modellers [and artists] to apply an even coat of paint or varnish to a surface without using a brush.

1.2 How does it work?

Despite the name, there is no 'brush' involved! The airbrush is a hand-held spray device that uses a propellant such as compressed air, evaporating liquid petroleum gas [LPG], nitrogen etc., to break up drops of paint into very fine droplets through valves and nozzles in the airbrush and blow them onto the target.

1.3 What are the benefits of airbrushing?

1.3.1 Airbrushing enables an even / smooth coat of paint or varnish to be applied to a surface without the tell-tale brush strokes that can occur when using the traditional brush application.

1.3.2 Thin layers of paint can be applied that minimises the filling of panel lines or other details on the surface with thick paint.

1.3.3 'Fuzzy' edges to camouflage patterns that reduce the 'scale effect' of using a brush.

1.3.4 Application of metallic paint with an even spread of 'glitter' particles.

1.3.5 Reduction in paint usage through thinner layers.

1.4 What are the disadvantages of airbrushing?

1.4.1 Airbrushing is an art form and unless you are very artistic, it will take a bit of trial and error to master the technique.

1.4.2 Hygiene is critical. Dust particles in the spraying area will be picked up by the airflow and invariably end up on the model giving it a sandpaper finish! To get the best finish, several layers with a fine sanding down may be required.

1.4.3 Your airbrush needs to be thoroughly cleaned each time it is used. Paint residues will reduce the movement of parts or reduce the clearances of the nozzles etc reducing efficiency. This will cause the paint to be badly applied with 'spatters' of paint or irregular spraying.

1.4.4 Overspray is the term given to paint that misses your target and ends up floating around the room and landing as dust on anything in the area.

1.4.5 Depending what you use as the propellant for your airbrush and the paint used, it can end up with a solvent / explosive gas build-up in the area. Ventilation of the work area is critical. Use of acrylic paint and compressed air will reduce this hazard.

2.0 The Airbrush

2.1 What is a Single-Action Airbrush?



Single-Action airbrushes are generally cheaper and have one control button that activates the propellant and the paint flow at the same time. Some control of the quantity of paint and propellant can be achieved by differing pressure on the control button. The Revell 29666 Starter Class and 39101 Standard Class airbrushes are examples of single-action airbrushes.

2.2 What is a Dual-Action Airbrush?

Dual-Action airbrushes typically use one control, but it operates in two ways. Press the button to start / set the propellant flow required and then draw it backwards to start the paint flow. The more the button is pressed, the higher the propellant flow [dependent on propellant source] and the paint flow. The Revell Master Class Vario ranges are dual-action.



2.3 How wide will the spray be?

The spray pattern of the airbrush depends on a number of factors including the type of airbrush, nozzle and needle set fitted and the distance from the item being painted. The majority of airbrushes in the Revell range are supplied with a medium nozzle / needle set. Change-parts are available for the Standard Class airbrush to enable fine, medium or large spray coverage.

2.4 Can I spray straight lines?

It is possible to spray straight lines, but they will have 'fuzzy' edges. Straight lines are normally achieved through use of masking film [39685 – A4 sheets], tape or a masking solution such as Revell 'Colour Stop' [39801 – 30ml bottle]. It is also possible to buy 'masks' for certain models to cover windscreen panels etc or complex paint schemes.

3.0 Propellant Source

3.1 What is the propellant source?

Unlike a paint brush, the airbrush operates by atomising droplets of paint through a flow of gas that propels the paint onto the target. The gas can be from several different sources. Most typically, modellers tend to use either an aerosol can [38665 or 38661] fitted with a Pressure Regulator [38270] included with the Starter and Standard Class Airbrushes or an air compressor.

3.2 What are the advantages and disadvantages of using an aerosol propellant source?

Advantages – self-contained, no power supply needed, cheaper initial cost than a compressor, no noise

Disadvantages – Pressure variation depending on how full the can is and the room temperature, more expensive millilitre for millilitre of propellant and no residual value [canisters are non-refillable], generally use LPG [liquefied petroleum gas that can lead to a build-up of explosive, noxious gas if not used in a well ventilated area]

3.3 What are the advantages and disadvantages of a compressor?

Advantages – Consistent flow / pressure of air, air is non-explosive, cheaper running cost than aerosol, residual value of equipment if you decide to give up modelling. A point to consider, when starting airbrushing is that a significant amount of practise is needed which can prove costly with aerosol canisters. It is better to think longer term as you may get through a couple of canisters just getting used to using the airbrush.



Disadvantages – Higher initial cost, electrical power supply needed, some noise [although generally relatively quiet running], larger than an aerosol canister to store [sizes are listed in the webshop]

4.0 Paint

4.1 Do I need special paints to use with an airbrush?

Enamel and acrylic based paints are the most commonly used by modellers and work perfectly well with airbrushes.

4.2 Can I use paints straight out of the tin?

No! Before use, paints need to be diluted to reduce the viscosity, otherwise the paint will not atomise correctly and the nozzle will quickly become clogged.

Revell produce a range of ready to use paints in glass jars that simply need a bit of a shake to get them mixed and then screw them straight onto the bottom of your airbrush. These are good value at £1.99 for a 25ml jar [compared with a 14ml tinlet]. The glass jar is re-usable if you want to mix your own paints. [The jars alone cost about £1.50!].

4.3 How do I dilute paint to use in an airbrush?

Enamel paint must be diluted with enamel thinners generally to around 60-70% paint [with 30-40% thinners]. Due to the higher level of solvent present, airbrushing of enamel paints should only be undertaken in a well-ventilated area. If using the aerosol canister propellant, the solvent presence will add to the potentially explosive atmosphere! Remember that central heating boilers, gas cookers etc could result in ignition.

Acrylic paint, depending on the manufacturer can be diluted with water [Revell 'Aqua' Acrylic paints are diluted with water]. Typical dilution rate would be about 80% paint to 20% water although this will vary depending on the viscosity of the paint.

Special effects can be practised using different dilution rates. For example, a 10% brown paint to 90% thinners / water [depending on paint type] can be used to give rust 'trails' on armour when applied with a fine nozzle or use black to simulate exhaust stains or an overall 'dirty' appearance.

4.4 How thickly is the paint applied?

Don't think thick! The thinner, the better. Several thin coats need to be applied, allowing time for the paint to dry. Weathering effects can be developed for example on a grey aircraft by progressively adding white paint to the base grey paint and then spraying thin coats, remembering to keep thinning the paint because of the added paint!

5.0 Is that all I need to start airbrushing?

As with any other new technique, there are a number of items that you may or may not need. Here are some suggestions. [They may already be included in some of the 'Starter Sets' produced by Revell.] All of these can be found in the Airbrush Accessories section of the Models2U web shop.

5.1 Spare Glass Jars [38300] – Glass jars are usually used for mixing the paint. Remember the Revell pre-mixed airbrush paints come with a jar that can be re-used and is generally more economical than buying the paint, thinner and jar separately!

5.2 Pipettes [38370] – To get the right proportions of paint to thinner, pipettes are used to measure out. They can be used several times if they are cleaned with white spirit.

5.3 Thinners [39612] – Diluting the paint needs enamel thinners. We can only send this out as part of a next day order over £30 due to postal restrictions.

5.4 Airbrush Clean [39011] – The painting head of the airbrush should be stripped down when you have finished painting to remove all paint residues from the finely engineered parts of the nozzle, needle and regulator. Most of the time the airbrush can be cleaned using white spirit, but to remove stubborn residues and as a periodic 'wash', Revell Airbrush Clean is highly recommended to keep the parts in top condition.

5.5 Fine, medium and large spray heads – Most of the Revell range come with 'medium' parts. Depending what you want to do, you may feel the need to buy a large or small to extend the uses of your airbrush. A change set can be quite expensive as you need to buy two or three parts depending on the brush, a needle, nozzle and a regulator. Some of the Revell sets include a number of accessories including change parts. Equally, the parts are finely engineered, and a drop on the floor can irreparably damage some of the parts. Models2U carry a wide range of spares or can get special parts within a short waiting time. Available in the Airbrushes section of the shop.

5.6 LP Hose [38230] or HP hose [38250] – The Revell Starter Class and Standard Class brushes come with the low pressure [LP] hose. Available separately, you can use either the LP [38230] or high pressure [HP] hose [38250], it doesn't matter, as generally unless you are painting with high pressure it is very unlikely that you will get anywhere near the maximum pressure for the low pressure hose. Typical airbrush uses about 0.5 - 1.0 Bar - go much higher and the paint will blow off the subject or will be dry by the time it hits the subject!! The high pressure hose is quite large in diameter [about 8mm] and a bit inflexible when you are trying to paint carefully. For the novice, consider low pressure hose [diameter about 3mm] which is more flexible. You get an adaptor to fit the LP hose included with the compressors.

5.7 Masking Accessories – Airbrushing on its own will result in paint in everything! To control where the paint is applied, it is necessary to 'mask' off parts of the model, for example clear parts, topside and underside, camouflage patterns etc. This can be done using a variety of methods including Masking Film [39685 – A4 sheets], Colour Stop [39801 – 30ml bottle applied by brush], masking tape [Tamiya 6mm, 10mm & 18mm in dispenser]

5.8 Spray Booth – Models2U can supply some professional spray booths for between £350 and £750 that contain filters that will absorb the overspray and solvents used.

5.9 Information Source - Revell produce a CD-ROM [99039] which is packed with video clips and other information that will guide the novice to use the airbrush effectively. This and some other books and videos are available from Models2U.

If you want any further information about the range of airbrushes or airbrushing, please contact us

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Or

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